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Information Sheet
Waste Discharge Requirements General Order No. ____
Existing Milk Cow Dairies

Table 1. Regional, State, and National Pond Liner Design Requirements

Central Valley Water Board	Pond Liner Design Requirements
Waste Discharge Requirements General Order No. ____	<p>Tier 1 or Tier 2 option: <u>Tier 1:</u> A pond designed to consist of a double liner constructed with 60-mil high density polyethylene or material of equivalent durability with a leachate collection and removal system (constructed in accordance with Section 20340 of Title 27) between the two liners will be acceptable without a demonstration that the pond design is protective of groundwater quality.</p> <p><u>Tier 2:</u> A pond designed in accordance with California Natural Resource Conservation Service (NRCS) Conservation Practice Standard 313 or equivalent and which the Discharger can demonstrate through submittal of technical reports that the alternative design is protective of groundwater quality as required in General Specification B. 8 of the General Order.</p>
Central Valley Counties	Pond Liner Design Requirements
Kings County	The specific discharge (seepage rate) of process water through the soils lining the bottom and sides of the manure separation pits and lagoons shall not be greater than 1×10^{-6} centimeters per second (cm/sec).
Merced County	Liner shall be designed and constructed with a seepage rate of 1×10^{-6} cm/sec or less (with no credit for manure sealing) and a minimum thickness of one foot.
Solano County	<p><u>Large dairies (700 or more mature dairy cows):</u> Liner placed atop bedrock or foundation materials comprised of (from bottom to top): (1) Two feet of compacted clay with permeability less than or equal to 1×10^{-7} cm/sec, (2) 60 mil high-density polyethylene geomembrane with a permeability less than or equal to 1×10^{-13} cm/sec, (3) Geomembrane filter fabric, and (4) 24-inch thick soil operations layer.</p> <p><u>Medium sized dairies (200 to 699 mature dairy cows):</u> Liner of compacted clay that is a minimum of one foot thick, with maximum permeability of 1×10^{-6} cm/sec.</p> <p><u>Small dairies (14 to 199 mature dairy cows):</u> No pond liner requirements.</p>

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Top 10 Milk Producing States (in order of highest to lowest milk production)	Pond Liner Design Requirements
California	Title 27 of the California Code of Regulations: 10% clay and no greater than 10% gravel.
Wisconsin	Wisconsin Natural Resources Conservation Service (NRCS) Practice Standard 313: In-place soils (more than 50 percent fines and three feet thick), clay (maximum permeability of 1×10^{-7} cm/sec), geomembrane (60 mil high density polyethylene or 60 mil linear low density polyethylene), geosynthetic clay liner, or concrete .
New York	No pond liner design requirements.
Pennsylvania	Pennsylvania NRCS Conservation Practice Standard 313: In place soils with acceptable permeability (see Appendix 10D below) or lined (soil liner with maximum seepage rate of 1×10^{-5} cm/sec, flexible membrane, bentonite, soil dispersant, or concrete)
Minnesota	Any material that meets maximum seepage rate of 500 gallons per acre per day (5.0×10^{-7} cm/sec).
Idaho	NRCS Agricultural Waste Management Field Handbook Appendix 10D (see below).
New Mexico	Case-by-case but compacted clay or synthetic is standard, maximum permeability of 1×10^{-7} cm/sec
Michigan	Michigan NRCS Conservation Practice Standard 313: In soils with acceptable permeability (per Appendix 10D (see below) or lined (with one foot compacted earth with maximum seepage rate of 1×10^{-5} cm/sec and a minimum one foot compacted operations layer, flexible membrane, bentonite, or concrete).
Washington	Washington NRCS Conservation Practice Standard 313: Maximum soil permeability of 1×10^{-6} cm/sec or a compacted clay liner, amended soil or synthetic liner required meeting requirements of NRCS Conservation Practice Standards 521A through 521D.
Texas	When no site specific assessment completed, one and a half foot of compacted clay with maximum permeability of 1×10^{-7} cm/sec. Otherwise, “designed and constructed in accordance with technical standards of NRCS, ASAE, ASCE, or ASTM that are in effect at time of construction.”

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Table 1. Regional, State, and National Pond Liner Design Requirements

Natural Resources Conservation Service (NRCS)	Pond Liner Design Requirements
NRCS Agricultural Waste Management Field Handbook Appendix 10D – Geotechnical, Design, and Construction Guidelines	<p>In-place soils at least two feet thick and maximum permeability of 1×10^{-6} cm/sec.</p> <p>Consider liner if: aquifer is unconfined and shallow and/or aquifer is a vital water supply; site underlain by less than two feet soil over bedrock, coarse-grained soils with less than 20 percent low plasticity fines, or soils with flocculated clays or highly plastic clays with blocky structure.</p> <p>Acceptable liners: Compacted clay liner (allowable seepage rate of 1×10^{-6} cm/sec if manure sealing cannot be credited or 1×10^{-5} cm/sec if manure sealing can be credited, minimum thickness of one foot), concrete, geomembranes, or geosynthetic clay liners.</p>
California NRCS Conservation Practice Standard 313	<p>Target maximum seepage rate of 1×10^{-6} cm/sec for all vulnerability/risk categories, except that:</p> <ol style="list-style-type: none"> (1) Synthetic liner required when aquifer vulnerability and risk are high (i.e., groundwater is within five to 20 feet of the pond bottom or coarse soils are present <u>and</u> the pond is within 600 feet from a domestic supply well), or (2) Other storage alternatives required when the aquifer vulnerability and risk are very high (i.e., groundwater is within five feet of the pond bottom or the pond is less than 600 feet from an improperly abandoned well <u>and</u> the pond is less than 1,500 feet from a public supply well or less than 100 feet from a domestic supply well).

Case for Caution Revisited: Health and Environmental Impacts of Application of Sewage Sludges to Agricultural Land

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Posted at: cwmi.css.cornell.edu/case.pdf

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Note: Text in this Arial font is written by the authors. Text in this Times New Roman font is quotations and citations.

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Over the past 15 years since the 40CFRPart503 rules were promulgated, there have been many new scientific findings regarding the environmental and health implications of the application of sewage biosolids to agricultural soils. Many of these findings show increased risks, risks that were not assessed as part of the risk assessment that USEPA used as the basis for the standards promulgated in 1993. These new findings support the rational basis for U.S. EPA to revise the federal regulations and for states and municipalities to regulate the application of sewage biosolids in order to protect their citizens and the land-base.

Agricultural soils are a unique and valuable resource. Protecting agricultural soils requires anticipating and avoiding potential harms since once contaminated with persistent pollutants, the damage will remain for the foreseeable future. Once contaminated, stopping the application of pollutants such as metals and many organic chemicals that are in sewage biosolids will not correct the problem. The contamination will remain for decades or centuries. It is thus critical to prevent this essentially permanent degradation.

Current Rules are Based on Outdated and Inadequate Science

As pointed out by the National Research Council, the risk assessment on which current rules are based was conducted nearly 20 years ago and is outdated. A tremendous amount of new knowledge about the presence and behavior of chemicals and pathogens has been developed in the last decades.

NRC Targets Pathogens in Sludge for Research. Rebecca Renner, 2002. Environmental Science and Technology: Science News - July 24. <<http://pubs.acs.org/doi/pdf/10.1021/es022404s>>

The U.S. EPA rules for using treated sewage sludge as fertilizer are based on outdated science, according to a report released in July from the National Academies, National Research Council (NRC). The report, which was produced after two years of study, recommends new research to update the rules. In particular, EPA needs to investigate the growing number of complaints about illnesses and even deaths from exposure to Class B sludge.

Under a 1993 Clean Water Act rule, treated sewage sludge, or biosolids, can be applied to land with certain limitations. Pathogen-containing Class B sludge, which makes up the bulk of sludge applied to land, may be used as fertilizer in situations in which public exposure is limited. Class A sludge can be applied on public sites. Of the 5.6 million tons of sewage sludge generated in the United States each year, 60% ends up being applied as fertilizer.

The agency needs to investigate the potential health effects from sludge exposure and find out more about the pathogens in sludge, according to committee chair Thomas Burke, a public health professor at Johns Hopkins University in Baltimore, Md. There is a serious lack of health-related information about populations exposed to treated sludge, adds Burke.

The NRC report also recommends a new national sludge survey to measure sludge contaminants, which would update the previous 1988 survey. This earlier study was unreliable and needs to include newly recognized chemicals of potential concern, including polybrominated biphenyl ether flame retardants, pharmaceuticals, and personal care products such as shampoos and soaps, says the NRC committee. EPA also needs to redo its assessment of the human health risks posed by metals in sludge. The revised risk assessments should reflect the potential for variations in climate, water flow, and sludge characteristics. The report also notes that more rigorous enforcement of the current standards is needed.”

Targeted National Sewage Sludge Survey Report Released in 2009. USEPA, <<http://earth1.epa.gov/waterscience/biosolids/tnsss-overview.html>>

The last EPA survey of sewage sludges nationally occurred in 1988. The EPA 503 rule was based in large part on the levels of contaminants detected in that survey. Many contaminants have emerged since then as being potentially harmful in the environment. This new survey by



EPA provides much-needed information on chemicals likely to be found in sewage sludges across the country.

In 2006 and 2007, the USEPA collected samples of sewage sludge from 74 randomly-chosen wastewater treatment facilities in 35 states. The sampled facilities are considered to be representative of the nation's 3,337 largest treatment facilities. The samples were tested for 145 chemicals, including metals, PAHs, nitrogen, phosphorus, flame retardants (PDBEs), pharmaceuticals, hormones, and steroids.

It is notable that, while the median concentrations of toxic metals, trace elements, and organic chemicals were generally many times lower than the highest concentrations observed, quite high concentrations of one or more chemicals were measured in a substantial fraction of the 74 treatment plants. This survey, while quite informative, is not able to assess variability of sludge composition over time, as the sewage sludge was sampled at a single time point. The survey showed some very high concentrations of specific chemicals at one or more treatment plants, with peak concentration for the following elements being:

Barium	3,460 mg/kg		Mercury	8.26 mg/kg
Fluoride	234 mg/kg		Nickel	526 mg/kg
Molybdenum	132 mg/kg		Copper	2,580 mg/kg
Silver	856 mg/kg		Tin	522 mg/kg
Cobalt	290 mg/kg		Vanadium	617 mg/kg
Iron	299,000 mg/kg		Zinc	8,550 mg/kg
Lead	450 mg/kg			

This list is only a sampling of the inorganic contaminants reported in the survey.

In many cases, the highest contaminant concentrations were found in the smallest wastewater treatment plants included in the survey (1-10 MGD plant). The very high Fe sludge (reported in the list above) also had very high phosphorus, attributable to a tertiary treatment process using iron salts to remove P from wastewater. As tertiary treatment to lower P in treated water is likely to increase in the future, we can perhaps expect to see more sewage sludges with very high Fe content. Although ferric iron is not a toxic metal when mixed into soil, it has been known to be toxic to cattle where sludge was applied directly to pasture.

The high levels of several unregulated or inadequately regulated and potentially toxic metals (e.g., silver, molybdenum, tin) are a concern for land application. It should also be of great concern for land application that the measured concentrations of persistent organic pollutants (POPs), including the brominated fire retardants (PBDEs), and the antimicrobial chemicals (triclosan and triclocarban) are so high in some sludges. These POPs are likely to build up in soils with repeated application, and have the potential to bioconcentrate in foraging animals and therefore in meat and milk. One of the eleven PBDE congeners measured (BDE 209) reached a concentration of 17,000 µg/kg in one sludge, and the highly bioaccumulative BDEs 47 and 99 reached levels as high as 5,000 µg/kg. Triclocarban and triclosan had peak concentrations of 441,000 and 133,000 µg/kg in separate sludges. The impact of these persistent chemicals on soil organisms, the safety of food crops, and the environment is not known at this time because of very limited research on their behavior and toxicity in soil.

The prevalence of a wide array of pharmaceuticals, steroids and hormones, as summarized in the EPA report, is a clear indication that the sewage treatment process does not degrade these organic chemicals effectively, and sewage sludge therefore becomes the repository for a large fraction of the chemicals used commercially and domestically.

New information on the impacts of the regulated contaminants

Endocrine Disruption

New information indicates that some of the handful of metals that are regulated under Part 503 pose risks that were not evaluated in the risk assessment upon which the Part 503 USEPA rules are based. The whole subject of endocrine disruption due to exposure to chemicals in the environment (i.e. our knowledge regarding the disruption to human and animal hormones and reproductive systems posed by a number of chemicals) has developed since those rules were promulgated.

Examples of several of the regulated metals for which new risks have been identified are lead and cadmium. Recent work shows that lead has a number of effects on sperm and may play a role in the rising infertility that is being observed. Cadmium has been shown to mimic estrogen and may be related to increased breast cancer. These metals are contained in all sewage biosolids. The contaminant limits in Part 503 do not include any recognition of these endocrine-disrupting impacts.

Increased seminal plasma lead levels adversely affect the fertility potential of sperm in IVF.

Susan Benoff, Grace M. Centola, Colleen Millan, Barbara Napolitano, Joel L. Marmar and Ian R. Hurley, 2003. Human Reproduction, V. 18, No. 2, 374-383

BACKGROUND: Lead remains in high levels in the environment and is known to reduce fertility in animal models, but a direct link between lead exposures and human infertility has not yet been established. **METHODS:** In a prospective, double-blind study of the metal ion levels and sperm function, semen was obtained from partners of 140 consecutive women undergoing their first IVF cycle. Lead in seminal plasma was determined by atomic absorption spectroscopy. Motile sperm populations were assessed for surface receptors for mannose binding, and the ability to undergo premature ('spontaneous'), and free mannose-induced acrosome reactions. Fertile donor ($n = 9$) sperm were exposed to exogenous lead during capacitating incubations and then assessed for mannose receptor expression and acrosome loss. **RESULTS:** Lead levels were negatively correlated with IVF rates. Lead levels were negatively correlated to two of the three sperm function biomarkers (mannose receptors, mannose-induced acrosome reactions). Lead levels positively correlated with the spontaneous acrosome reaction. These findings were mimicked by in-vitro exposure of fertile donor sperm to lead. **CONCLUSIONS:** Multiple sperm parameters are affected as lead levels rise. Increased lead levels may contribute to the production of unexplained male infertility.

Cadmium mimics the in vivo effects of estrogen in the uterus and mammary gland. Michael D Johnson, Nicholas Kenney, Adriana Stoica, Leena Hilakivi-Clarke, Baljit Singh, Gloria Chepko,



Robert Clarke, Peter F Sholler, Apolonio A Lirio, Colby Foss, Ronald Reiter, Bruce Trock, Soonmyoung Paik, and Mary Beth Martin, 2003. *Nature Medicine*, 9:1081-1084. Letter Published online: 13 July 2003.

Abstract: “It has been suggested that environmental contaminants that mimic the effects of estrogen contribute to disruption of the reproductive systems of animals in the wild, and to the high incidence of hormone-related cancers and diseases in Western populations. Previous studies have shown that functionally, cadmium acts like steroidal estrogens in breast cancer cells as a result of its ability to form a high-affinity complex with the hormone binding domain of the estrogen receptor1, 2. The results of the present study show that cadmium also has potent estrogen-like activity *in vivo*. Exposure to cadmium increased uterine wet weight, promoted growth and development of the mammary glands and induced hormone-regulated genes in ovariectomized animals. In the uterus, the increase in wet weight was accompanied by proliferation of the endometrium and induction of progesterone receptor (PgR) and complement component C3. In the mammary gland, cadmium promoted an increase in the formation of side branches and alveolar buds and the induction of casein, whey acidic protein, PgR and C3. *In utero* exposure to the metal also mimicked the effects of estrogens. Female offspring experienced an earlier onset of puberty and an increase in the epithelial area and the number of terminal end buds in the mammary gland.”

Cadmium mimics effects of estrogen. NewScientist.com News Service, 13:44, July 14, 2003.

Cadmium is astonishingly good at mimicking the effects of the female sex hormone estrogen, new research on rats has revealed. The discovery raises concerns that the metal, and others like it, could increase the risk of illnesses like breast cancer in people.

Cadmium is widely used in batteries, and is present in cigarette smoke and sewage sludge spread on agricultural land. It is best known for obvious toxic effects on the liver and kidneys.

But new research by Mary Beth Martin's team at Georgetown University in Washington DC shows that, at much lower doses, cadmium can cause very similar effects as estrogen.

Martin gave cadmium to female rats whose ovaries had been removed, so they could not make estrogen themselves. The animals received doses comparable to the level set by the World Health Organization as a tolerable weekly intake for people. The results were unexpectedly striking, with the effects of the cadmium appearing almost identical to those of estrogen.

Denser tissue

Rats given cadmium rapidly developed heavier wombs, denser mammary glands and thicker womb linings - just as they did when given estrogen itself. They also began to make milk, and two genes usually activated by estrogen were switched on.

And when Martin's team gave cadmium to pregnant rats, their female offspring went through puberty sooner and developed denser mammary gland tissue, again matching the effects of estrogen.

Impacts on livestock

Livestock that graze on sludge-amended pastures ingest biosolids that adhere to the forage plants and also ingest soil directly. Particularly in arid conditions, soil can be up to 18% dry weight of a grazing animal's diet. Even where lesser amounts are ingested, recent research has shown impacts to grazing animals from biosolids additions to soils. These impacts include an accumulation of toxic metals in edible body organs, with implications for the human food chain. Additionally, endocrine disruption (reduced testis size) has been documented, with implications for livestock reproduction. There is now evidence that elements in sludge, particularly molybdenum and sulfur, are readily taken up by forages and can lead to Cu deficiency in livestock.

Accumulation of potentially toxic elements by sheep given diets containing soil and sewage sludge. 1. Effect of type of soil and level of sewage sludge in the diet. Hill, J. B. Stark, J. Wilkinson, M. Curran, I. Lean, J. Hall, C. Livesey, 1998. *Animal Science*, 67:73-86.

Live weight gain was depressed by the addition of sludge to the diet. Levels of cadmium and lead in liver and kidneys increased, with the lead levels approaching the UK statutory limit for human food.

The long-term effect of sludge application on Cu, Zn, and Mo behavior in soils and accumulation in soybean seeds. B.J. Kim, M.B. McBride, B.K. Richards, T.S. Steenhuis, 2007. *Plant and Soil*, 299:227-236.

Molybdenum and copper uptake by forage grasses and legumes grown on a metal-contaminated sludge site. M.B. McBride, 2005. *Communications in Soil Science and Plant Analysis*, 36: 2489-2501.

Molybdenum extractability in soils and uptake by alfalfa 20 years after sewage sludge application. M.B. McBride and B. Hale, 2004. *Soil Science*, 169:505-514.

Molybdenum, sulfur, and other trace elements in farm soils and-forages after sewage sludge application. M.B. McBride, 2004. *Communications in Soil Science and Plant Analysis*, 35:517-535.

The EPA 503 rule regulated the loading of only 8 heavy metals on agricultural soils. Molybdenum loading on soils is not limited by the 503 rule even though this trace metal presents a well-documented danger for ruminant animals due to its ready uptake into forage legumes, grasses, soybeans and other crops. The 4 research papers cited above demonstrates that molybdenum in land-applied sewage represents a sustained and long-term risk to livestock health from increased molybdenum in forages and soybeans.

Effects of pasture applied biosolids on performance and mineral status of grazing beef heifers. M.E. Tiffany, L.R. McDowell, G.A. O'Connor, F.G. Martin, N.S. Wilkinson, E.C. Cardoso, S.S. Percival and P.A. Rabiansky, 2000. *J. Animal Science*, 78:1331-1337.



Effects of residual and reapplied biosolids on performance and mineral status of grazing beef steers. M.E. Tiffany, L.R. McDowell, G.A. O'Connor, F.G. Martin, N.S. Wilkinson, S.S. Percival and P.A. Rabiansky, 2002. J. Animal Science, 80:260-269.

Molybdenum and sulfur in forage crops are known to reduce the availability of copper to ruminant animals, and can lead to severe copper deficiency in livestock.

Studies in Florida have revealed that, while molybdenum applied with sewage sludges on bahiagrass was not taken up by the grass to a significant degree, grazing beef cattle nevertheless developed signs of copper deficiency as confirmed by reductions in liver copper stores. This negative effect of sewage sludge on copper availability to the cattle was attributed to high sulfur concentrations in the sludge-amended pastures. The low uptake of molybdenum by grass in that study can be attributed to the low pH of the pasture soils.

Exposure to pastures fertilised with sewage sludge disrupts bone tissue homeostasis in sheep. P. Monica Lind, M. Gustafsson, S.A.B. Hermsen, S. Larsson, C.E. Kyle, J. Orberg and S.M. Rhind, 2009. Science of the Total Environment, 407:2200-2208.

A recent study has shown that male sheep exposed to low levels of pollutants by grazing on pastures fertilized with sewage sludge developed bone tissue abnormalities.

Cellular and hormonal disruption of fetal testis development in sheep reared on pasture treated with sewage sludge. Catriona Paul, Stewart M. Rhind, Carol E. Kyle, Hayley Scott, Chris McKinnell, and Richard M. Sharpe, 2005. Environmental Health Perspectives, 113(11):1580-1587

Fetuses of pregnant sheep reared on sludge-treated pasture had reduced body weight. Male fetus testis were significantly reduced. "These findings indicate that exposure of the developing male sheep fetus to real-world mixtures of environmental chemicals can result in major attenuation of testicular development and hormonal function, which may have consequences in adulthood." This has the potential for impact on fertility.

Movement to groundwater through facilitated transport

New understanding about the movement of contaminants (both chemicals and pathogenic organisms) through soils into groundwater has been developed in recent years. This includes information showing that contaminants may "piggy-back" on other chemicals that move in water (this is termed "facilitated transport"). Thus a chemical which by itself is relatively immobile in soils (such as many metals), can move rapidly through soils when other chemicals are present (such as organic matter in biosolids). In addition, another mechanism that provides for rapid movement of chemicals through soils is that water and the contaminants carried in it can move through soils along preferential flow paths (such as worm holes, root channels or wetting fingers).

Recent short feature articles on these topics prepared by Cornell include *Colloidal transport: the facilitated movement of contaminants into groundwater* (B.K. Richards, J.F. McCarthy, T.S. Steenhuis, A.G. Hay, Y. Zevi, A. Dathe. 2007. Journal of Soil & Water Conservation 62(3)55A-



56A) and *The unintentional secret*. (B.K. Richards, N. Peranginangin, T.S. Steenhuis and L.D. Geohring. 2003. Journal of Soil & Water Conservation, September-October 2003 59(5):104A-105A). By these mechanisms, contaminants can move through the soil and into groundwater much more quickly than predicted in the very limited risk assessment of groundwater transport potential performed to support the Part 503 rules. The rate of contaminant movement predicted by that risk assessment relied on data from a *single* paper based on *test tube* mobility tests from a *single soil type*. No actual field data were used. Furthermore, the transport models employed by that assessment assumed uniform homogenous soils. The risk assessment thus did not account for these common rapid flow phenomena.

Biosolid colloid-mediated transport of copper, zinc, and lead in waste-amended soils. A.D. Karathanasis, D.M.C. Johnson, and C.J. Matocha, 2005. Journal of Environmental Quality, 34(4):1153-1164

A significant increase in the leaching of metals (up to 10,000 times) was measured in a laboratory experiment as a result of the binding of metals to the organic colloids in sewage sludge. "The findings demonstrate the important role of biosolids colloids as contaminant carriers and the significant risk they pose."

Effect of Mineral Colloids in Virus Transport through Saturated Sand Columns. Yan Jin, Ellen Pratt, and Marylynn V. Yates, 2000. Journal of Environmental Quality, 29(2):532-539

The movement of viruses through soils was facilitated by adsorption on to colloidal particles.

Facilitated Transport of Napropamide by Dissolved Organic Matter in Sewage Sludge-Amended Soil. L. Nelson, W. Farmer, C.J. Williams, and M. Ben-Hur, 1998. Journal of Environmental Quality, 27:1194-1200.

Abstract: The application of sewage sludge to agricultural soils is practiced to minimize landfill disposal. Organic matter amendments to soil are generally thought to improve soil quality, but pesticide application to these soils may lead to groundwater contamination problems. The complexation of pesticides with a water-soluble carrier such as dissolved organic matter (DOM) may facilitate chemical movement through soil. Sewage sludge amendments may lead to greater downward movement of organic chemicals if associated with DOM. Napropamide [2- α -naphthoxy)-*N,N*-diethylpropionamide] was applied to a silt loam soil with (SS) and without (NoSS) sewage sludge application. Laboratory batch equilibrium and soil column studies were performed to determine the potential for herbicide complexation with DOM. Over 98% of the herbicide in soil columns followed typical adsorption and transport behavior as the center of mass of the lower organic matter soil (NoSS) moved twice the depth as that of SS. However, napropamide was detected in the initial leachate eluted from repacked soil columns with steps taken to prevent preferential flow. Napropamide concentrations in the initial leachate of SS were twice that from NoSS with <1.5% of the total applied chemical mass eluting from the bottom of each column. A strong positive relationship was found between napropamide concentration and DOM content in soil leachates. Equilibrium dialysis methods were used to determine that napropamide moving



through the soil columns was complexed with DOM. The results show that DOM can facilitate herbicide movement through soil and that sewage sludge-derived DOM may lead to enhanced chemical transport in sludge-amended soils.

Enhanced Transport of Pesticides in a Field Trial with Treated Sewage Sludge. E. Grager, I. Dror, F. Bercovich, and M. Rosner, 2001. *Chemosphere*, 44: 805-811

Pesticide leaching in arid field soils was increased by the application of sewage sludge.

Aerosols and human health effects

Health effects from exposure to sewage sludge during land spreading have been reported frequently, but these reports have been considered anecdotal and not confirmatory evidence that illness can result from aerosols released during application. Few studies have actually addressed symptoms related to land application. A study of people living near application sites compared with a control population showed statistically elevated health-related symptoms in the exposed population. Another study of 48 people located near 10 land application sites indicated that chemical irritants and pathogens in sludge may interact to cause symptoms.

Several recent publications have tracked aerosol emissions from fields during sewage sludge (biosolids) application and tillage. DNA-based microbial tracking has proven that wind is a critical factor in the formation and off-site migration of aerosols. Biosolids aerosols of inhalable size (< 10 µm), containing bacteria such as coliforms and Health survey of residents living near farm fields permitted to receive biosolids.

Health Survey of Residents Living near Farm Fields Permitted to Receive Biosolids. Sadik Khuder, Sheryl A. Milz, Michael Bisesi, Robert Vincent, Wendy McNulty, and Kevin Czajkowski, 2007. *Archives of Environmental and Occupational Health*, 62(1):5-11.

Abstract: The authors studied the health status of residents living in Wood County, OH, near farm fields that were permitted to receive biosolids. They mailed a health survey to 607 households and received completed surveys from 437 people exposed to biosolids (living on or within 1 mile of the fields where application was permitted) and from 176 people not exposed to biosolids (living more than 1 mile from the fields where application was permitted). The authors allowed for up to 6 surveys per household. Results revealed that some reported health-related symptoms were statistically significantly elevated among the exposed residents, including excessive secretion of tears, abdominal bloating, jaundice, skin ulcer, dehydration, weight loss, and general weakness. The frequency of reported occurrence of bronchitis, upper respiratory infection, and giardiasis were also statistically significantly elevated. The findings suggest an increased risk for certain respiratory, gastrointestinal, and other diseases among residents living near farm fields on which the use of biosolids was permitted. However, further studies are needed to address the limitations cited in this study.

Interactions of pathogens and irritant chemicals in land-applied sewage sludges (biosolids). David L Lewis, David K Gattie, Marc E Novak, Susan Sanchez, and Charles Pumphrey, 2002.



Background: Fertilisation of land with processed sewage sludges, which often contain low levels of pathogens, endotoxins, and trace amounts of industrial and household chemicals, has become common practice in Western Europe, the US, and Canada. Local governments, however, are increasingly restricting or banning the practice in response to residents reporting adverse health effects. These self-reported illnesses have not been studied and methods for assessing exposures of residential communities to contaminants from processed sewage sludges need to be developed.

Methods: To describe and document adverse effects reported by residents, 48 individuals at ten sites in the US and Canada were questioned about their environmental exposures and symptoms. Information was obtained on five additional cases where an outbreak of staphylococcal infections occurred near a land application site in Robeson, PA. Medical records were reviewed in cases involving hospitalisation or other medical treatment. Since most complaints were associated with airborne contaminants, an air dispersion model was used as a means for potentially ruling out exposure to sludge as the cause of adverse effects.

Results: Affected residents lived within approximately 1 km of land application sites and generally complained of irritation (e.g., skin rashes and burning of the eyes, throat, and lungs) after exposure to winds blowing from treated fields. A prevalence of *Staphylococcus aureus* infections of the skin and respiratory tract was found. Approximately 1 in 4 of 54 individuals were infected, including 2 mortalities (septicaemia, pneumonia). This result was consistent with the prevalence of *S. aureus* infections accompanying diaper rashes in which the organism, which is commonly found in the lower human colon, tends to invade irritated or inflamed tissue.

Conclusions: When assessing public health risks from applying sewage sludges in residential areas, potential interactions of chemical contaminants with low levels of pathogens should be considered. An increased risk of infection may occur when allergic and non-allergic reactions to endotoxins and other chemical components irritate skin and mucus membranes and thereby compromise normal barriers to infection.

Particulate matter composition and emission rates from the disk incorporation of class B biosolids into soil. Tania Paez-Rubio, Xin Huab, James Anderson, Jordan Peccia, 2006. Atmospheric Environment, 40:7034-7045

Abstract: Biosolids contain metal, synthetic organic compound, endotoxin, and pathogen concentrations that are greater than concentrations in the agricultural soils to which they are applied. Once applied, biosolids are incorporated into soils by disking and the aerosols produced during this process may pose an airborne toxicological and infectious health hazard to biosolids workers and nearby residents. Field studies at a Central Arizona biosolids land application site were conducted to characterize the physical, chemical, and biological content of the aerosols produced during biosolids disking and the content of bulk biosolids and soils from which the aerosols emanate. Arrayed samplers were used to estimate the vertical source aerosol concentration profile to enable plume height and associated source emission rate calculations. Source aerosol



concentrations and calculated emission rates reveal that disking is a substantial source of biosolids-derived aerosols. The biosolids emission rate during disking ranged from 9.91 to 27.25 mg s⁻¹ and was greater than previously measured emission rates produced during the spreading of dewatered biosolids or the spraying of liquid biosolids. Adding biosolids to dry soils increased the moisture content and reduced the total PM10 emissions produced during disking by at least three times. The combination of bulk biosolids and aerosol measurements along with PM10 concentrations provides a framework for estimating aerosol concentrations and emission rates by reconstruction. This framework serves to eliminate the difficulty and inherent limitations associated with monitoring low aerosol concentrations of toxic compounds and pathogens, and can promote an increased understanding of the associated biosolids aerosol health risks to workers and nearby residents.

Source Tracking Aerosols Released from Land-Applied Class B Biosolids during High-Wind Events. Carolina Baertsch, Tania Paez-Rubio, Emily Viau, and Jordan Peccia, 2007. Applied and Environmental Microbiology, 73:4522-4531

Abstract: DNA-based microbial source tracking (MST) methods were developed and used to specifically and sensitively track the unintended aerosolization of land-applied, anaerobically digested sewage sludge (biosolids) during high-wind events. Culture and phylogenetic analyses of bulk biosolids provided a basis for the development of three different MST methods. They included (i) culture- and 16S rRNA gene-based identification of *Clostridium bifermentans*, (ii) direct PCR amplification and sequencing of the 16S rRNA gene for an uncultured bacterium of the class Chloroflexi that is commonly present in anaerobically digested biosolids, and (iii) direct PCR amplification of a 16S rRNA gene of the phylum Euryarchaeota coupled with terminal restriction fragment length polymorphism to distinguish terminal fragments that are unique to biosolid-specific microorganisms. Each method was first validated with a broad group of bulk biosolids and soil samples to confirm the target's exclusive presence in biosolids and absence in soils. Positive responses were observed in 100% of bulk biosolid samples and in less than 11% of the bulk soils tested. Next, a sampling campaign was conducted in which all three methods were applied to aerosol samples taken upwind and downwind of fields that had recently been land applied with biosolids. When average wind speeds were greater than 5 m/s, source tracking results confirmed the presence of biosolids in 56% of the downwind samples versus 3% of the upwind samples. During these high-wind events, the biosolid concentration in downwind aerosols was between 0.1 and 2 µg/m³. The application of DNA-based source tracking to aerosol samples has confirmed that wind is a possible mechanism for the aerosolization and off-site transport of land-applied biosolids.

Off-Site Exposure to Respirable Aerosols Produced during the Disk-Incorporation of Class B Biosolids. Swee Yang Low, Tania Paez-Rubio, Carolina Baertsch, Matthew Kucharski, and Jordan Peccia, 2007. Journal of Environmental Engineering, 133:987-994

Abstract: Field experiments were conducted at a Class B biosolids land application site in central Arizona to measure, model, and source-track the off-site transport of aerosols emitted when biosolids were disk-incorporated into soils. Real-time PM10 monitoring provided time-resolved



aerosol information sufficient for verifying both off-site concentration and off-site exposure time model results. Under the conditions considered and at a distance of 165 m from the aerosol source, biosolids disk-incorporation resulted in an intermittent exposure to biosolids-derived aerosol concentration between 15 and 40 $\mu\text{g}/\text{m}^3$ and an inhalable biosolids dose between 2 and 8 μg . Transport modeling predicted that these doses will decrease with increasing wind speed. In addition, three DNA sequence-based biosolids source tracking methods were applied to aerosol samples and confirmed the presence of biosolids in aerosols at 5, 65, and 165 m from the aerosol source. Field measurements and modeling indicate that the nature of biosolids-derived aerosol exposure is a series of intermittent high concentration puffs, rather than a continuous low concentration.

Emission Rates and Characterization of Aerosols Produced During the Spreading of Dewatered Class B Biosolids. Tania Paez-Rubio, Abel Ramarui, Jeffrey Sommer, Hua Xin, Hua, James Anderson, and Jordan Peccia, 2008. *Environmental Science and Technology*, 41(10):3537-3544.

Abstract: This study measured aerosol emission rates produced during the spreading of dewatered class B biosolids onto agricultural land. Rates were determined in multiple independent experimental runs by characterizing both the source aerosol plume geometry and aerosol concentrations of PM₁₀, total bacteria, heterotrophic plate count bacteria (HPC), two types of biosolids indicator bacteria, endotoxin, and airborne biosolids regulated metals. These components were also measured in the bulk biosolids to allow for correlating bulk biosolids concentrations with aerosol emission rates and to produce reconstructed aerosol concentrations. The average emission rates and associated standard deviation for biosolids PM₁₀, total bacteria, HPC, total coliforms, sulfite-reducing Clostridia, endotoxin, and total biosolids regulated metals were 10.1 ± 8.0 (mg/s), $1.98 \pm 1.41 \times 10^9$ (no./s), $9.0 \pm 11.2 \times 10^7$ (CFU/s), $4.9 \pm 2.2 \times 10^3$ (CFU/s), $6.8 \pm 3.8 \times 10^3$ (CFU/s), $2.1 \pm 1.8 \times 10^4$ (EU/s), and 36.9 ± 31.8 ($\mu\text{g}/\text{s}$) respectively. Based on the land application rates of spreaders used in this study, an estimated 7.6 ± 6.3 mg of biosolids were aerosolized for every 1 kg (dry weight) applied to land. Scanning electron microscopy particle size distribution analysis of the aerosols revealed that greater than 99% of the emitted particles were less than 10 μm and particle size distributions had geometric mean diameters and standard deviations near 1.1 ± 0.97 μm . The demonstrated correlations of bulk biosolids concentrations with aerosol emission rates, and the reconstruction of aerosol concentration based on PM₁₀ and bulk biosolids concentration provide a more fundamental, bulk biosolids based approach for extending biosolids aerosol exposure assessment to different land application scenarios and a broader range of toxins and pathogens.

Non-regulated contaminants and POPs

Only 9 contaminants are regulated under the Part 503 rules. There are many unregulated contaminants present in sewage biosolids. Some were considered when the rules were being developed and EPA decided not to regulate them. Chemicals considered for regulation, but not included in the 503 rules, include both chemicals for which there were insufficient data to evaluate the risks as well as chemicals for which EPA determined the risk was not substantial. There are,



however, many other chemicals now in widespread usage that were not even considered when the 503 rules were promulgated. Among those are the brominated flame retardants, antibacterials, wastewater treatment flocculant polymers, organotins, surfactants, fragrance chemicals and pharmaceuticals.

Over 500 different synthetic organic chemicals have been reported in sewage sludges. Concentrations of many exceed Soil Screening levels set by EPA. None are regulated in sewage biosolids in the US. EPA eliminated organic chemicals from regulatory consideration based on insensitive analyses that had high detection limits for most organic chemicals, too high to measure levels that would be of environmental significance.

All sewage biosolids contain an array of synthetic organic chemicals. An array of pharmaceuticals was found in all of the biosolids tested, regardless of the type of treatment. All biosolids are “highly enriched” in organic wastewater contaminants. Some are present in high concentrations in sewage biosolids (up to 1% by dry weight). Some have demonstrated toxicity. Pharmaceuticals are designed to be biologically active at very low concentrations and thus even at trace levels they may impact plants and animals. There is new information showing that antibiotics and other pharmaceuticals have an impact on plants grown in soils containing these chemicals.

The fate of chemicals entering a wastewater treatment plant depends on the chemical and the treatment processes. They may pass through the treatment plant virtually undegraded and travel with the water effluent, they may be sorbed onto the sludge solids, they may volatilize or they may be transformed or degraded in the treatment process. Most organic chemicals tend to sorb onto and thus concentrate in sewage biosolids rather than volatilizing or traveling through the wastewater treatment plant for discharge with the water effluent.

While many organic chemicals are not degraded or transformed by treatment processes (including composting), some compounds are transformed through chemical and biological process, creating daughter products that may be more or less toxic than the original compound. For example, surfactants are a group of chemicals present in large quantities in biosolids. The degradation products of alkyl phenol ethoxylate (APE) surfactants are significantly more toxic than the original compounds and anaerobic digestion processing at wastewater treatment plants promote this transformation, resulting in high concentrations of the recalcitrant and toxic daughter product. This has led to the restriction in use of APEs in Europe. Even compounds that may degrade to less toxic products may be present in such high concentrations in sludges that despite degradation that may take place when the sludge is applied to land, the concentration of the original compound remains at levels of concern. The surfactant LAS is such a compound.

Determination of Anionic and Nonionic Surfactants, Their Degradation Products, and Endocrine-Disrupting Compounds in Sewage Sludge by Liquid Chromatography/Mass Spectrometry. M. Petrovic and D. Barcelo, 2000. *Analytical Chemistry*, 72: 4560-4567



Surfactants are present in sludges in high concentrations. Degradation may result in more toxic compounds. Aerobic conditions are necessary for more complete degradation of some surfactants to more benign products.

Organic Chemicals in Sewage Sludges. Ellen Z. Harrison, Summer Rayne Oakes, Matthew Hysell, and Anthony Hay, 2006. *Science of the Total Environment* 367(2-3):481-497.

Abstract: Sewage sludges are residues resulting from the treatment of wastewater released from various sources including homes, industries, medical facilities, street runoff and businesses. Sewage sludges contain nutrients and organic matter that can provide soil benefits and are widely used as soil amendments. They also, however, contain contaminants including metals, pathogens, and organic pollutants. Although current regulations require pathogen reduction and periodic monitoring for some metals prior to land application, there is no requirement to test sewage sludges for the presence of organic chemicals in the U. S. To help fill the gaps in knowledge regarding the presence and concentration of organic chemicals in sewage sludges, the peer-reviewed literature and official governmental reports were examined. Data were found for 516 organic compounds which were grouped into 15 classes. Concentrations were compared to EPA risk-based soil screening limits (SSLs) where available. For 6 of the 15 classes of chemicals identified, there were no SSLs. For the 79 reported chemicals which had SSLs, the maximum reported concentration of 86% exceeded at least one SSL. Eighty-three percent of the 516 chemicals were not on the EPA established list of priority pollutants and 80% were not on the EPA's list of target compounds. Thus analyses targeting these lists will detect only a small fraction of the organic chemicals in sludges. Analysis of the reported data shows that more data has been collected for certain chemical classes such as pesticides, PAHs and PCBs than for others that may pose greater risk such as nitrosamines. The concentration in soil resulting from land application of sludge will be a function of initial concentration in the sludge and soil, the rate of application, management practices and losses. Even for chemicals that degrade readily, if present in high concentrations and applied repeatedly, the soil concentrations may be significantly elevated. The results of this work reinforce the need for a survey of organic chemical contaminants in sewage sludges and for further assessment of the risks they pose.

Survey of Organic Wastewater Contaminants in Biosolids Destined for Land Application. C.A. Kinney, E.T. Furlong, S.D. Zaugg, M.R. Burkhardt, S.L. Werner, J.D. Cahill, and G.R. Jorgensen, 2006. *Environmental Science and Toxicology*, 40(23):7207-7215.

Abstract: In this study, the presence, composition, and concentrations of organic wastewater contaminants (OWCs) were determined in solid materials produced during wastewater treatment. This study was undertaken to evaluate the potential of these solids, collectively referred to as biosolids, as a source of OWCs to soil and water in contact with soil. Nine different biosolid products, produced by municipal wastewater treatment plants in seven different states, were analyzed for 87 different OWCs. Fifty-five of the OWCs were detected in at least one biosolid product. The 87 different OWCs represent a diverse cross section of emerging organic contaminants that enter wastewater treatment plants and may be discharged without being



completely metabolized or degraded. A minimum of 30 and a maximum of 45 OWCs were detected in any one biosolid. The biosolids used in this study are produced by several production methods, and the plants they originate from have differing population demographics, yet the percent composition of total OWC content, and of the most common OWCs, typically did not vary greatly between the biosolids tested. The summed OWC content ranged from 64 to 1811 mg/kg dry weight. Six biosolids were collected twice, 3-18 months apart, and the total OWC content of each biosolid varied by less than a factor of 2. These results indicate that the biosolids investigated in this study have OWC compositions and concentrations that are more similar than different and that biosolids are highly enriched in OWCs (as mass-normalized concentrations) when compared to effluents or effluent-impacted water. These results demonstrate the need to better describe the composition and fate of OWCs in biosolids since about 50% of biosolids are land applied and thus become a potentially ubiquitous nonpoint source of OWCs into the environment.

Organic Contaminants in Canadian Municipal Sewage Sludge. Part II. Persistent Chlorinated Compounds and Polycyclic Aromatic Hydrocarbons. J. Kohli, H.B. Lee and T.E. Peart, 2006. Water Quality Research Journal of Canada, 41: 47-55

PAHs, PCBs, and other persistent organic pollutants are found in essentially all sludges, but at widely varying concentrations depending on the source of sludge.

Persistence of organic contaminants in sewage sludge-amended soil: A field experiment. S.C. Wilson, R. E. Alcock, A.P. Sewart, K.C. Jones, 1997. J. Environ. Qual., 26: 1467-1477.

POPs introduced into soils by sewage sludge incorporation, specifically dioxins and PCBs, persisted in the soil with concentrations unchanged up to 260 days.

Partitioning, persistence, and accumulation in digested sludge of the topical antiseptic triclocarban during wastewater treatment. J. Heidler, A. Sapkota, R.U. Halden, 2006. Environmental Science & Technology, 40, 3634-3639.

Antibacterial chemicals, including triclosan and triclocarban, are common additives in many antimicrobial household products, including soaps and other personal care products. Research now confirms that most of the triclocarban in wastewater sludge is not decomposed during anaerobic digestion in the wastewater treatment plant, with the result that it concentrates to a high degree in sewage sludge.

Bioaccumulation of pharmaceuticals and other anthropogenic waste indicators in earthworms from agricultural soil amended with biosolid or swine manure. C.A. Kinney, E.D. Furlong, D.W. Kolpin, M.R. Burkhardt, S.D. Zaugg, S.L. Werner, J.P. Bossio and M.J. Benotti, 2008. Environmental Science & Technology, 42:1863-1870.

Triclosan has been shown to bioaccumulate in earthworms sampled from an agricultural field amended with sewage sludge.

Fate of higher brominated PBDEs in lactating cows. A. Kierkegaard, L. Asplund, C.A. deWit, M.S. McLachlan, G.O. Thomas, A.J. Sweetman, K.C. Jones, 2007. Environ. Sci. Technol., 41:417-423

Brominated fire retardant chemicals in contaminated feed accumulated in the fat of cows, indicating that meat consumption may be an important human exposure route to higher brominated BDEs. This



observation has important implications for pasture and forage land contamination by these chemicals in sewage sludge.

EPA finds record PFOS, PFOA levels in Alabama grazing fields. R. Renner, 2009. Environmental Science & Technology, 43(5):1245-1246.

Scientists with the EPA, USDA and FDA are investigating whether the high levels of perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) measured in agricultural soils in Alabama could have entered the food chain through beef cattle grazing on the land. Sewage sludge had been applied to these pasture lands used for grazing over a 12 year period, and is the likely source of these stable perfluorinated chemicals which are possibly carcinogenic.

Removal of Organotins During Sewage Treatment: A Case Study. N. Voulvoulis, M.D. Scrimshaw, and J.N. Lester, 2004. Environmental Technology, 25(6):733-740.

Organotins are highly toxic compounds found in sludges. They do not degrade in the wastewater treatment process.

The potential impact of veterinary and human therapeutic agents in manure and biosolids on plants grown on arable land: a review. Patrick K. Jjemba, 2002. Agriculture, Ecosystems and Environment, 93(1-3):267-278

Substantial quantities of pharmaceuticals are applied to land in sludges and manures. Detrimental impacts of pharmaceuticals on crops is observed with some species of plants.

Bacterial regrowth/viable non-culturable (VNC)

Recent research has demonstrated that sewage biosolids believed to meet Class A or Class B standards were subject to regrowth and reactivation of bacteria. Thus materials have been land applied that contained bacterial levels far above those of Class A or Class B as defined by USEPA under Part 503. Coliform concentrations were found to increase by 100-1000-fold in biosolids and in soil/biosolid mixtures after centrifugation of anaerobically digested biosolids. Coliform concentrations up to 100,000 times those measured by conventional culture methods may be found in thermophilically digested sludges after centrifugation. This results from the presence of viable but non-culturable bacteria.

Increases in Fecal Coliform Bacteria Resulting From Centrifugal Dewatering of Digested Biosolids. Yinan Qi, Steven. K. Dentel, and Diane S. Herson, 2007. Water Research, 41(3):571-580.

Abstract: In many countries, the classification of biosolids for disposal purposes can be based, in part, on fecal coliform levels, with alternative criteria also available based on the stabilization process used, such as anaerobic digestion. The assumption that these alternative criteria provide equivalent protection may be flawed. This paper demonstrates that fecal coliform levels determined after digestion do not always indicate the bacterial levels after the same biosolids have been dewatered by centrifugation. In samples from mesophilic digestion, half had significant



increases in coliform numbers ($P < 0.05$) with up to one order of magnitude increase during centrifugation, suggesting coliform regrowth. Thermophilically digested samples had significant increases of several orders of magnitude during dewatering, more likely from reactivation of viable but non-culturable coliforms than from regrowth. In other cases, centrifugation induced coliform regrowth or reactivation upon incubation and storage of dewatered samples, but not digested samples. These 2–3 order of magnitude increases occurred with both 25 and 37 °C incubations. Coliform increases continued for up to 5 days, then gradually declined. However, by day 20 coliform numbers were still 2 orders of magnitude greater than when originally sampled. The magnitude of the increases could be due either to regrowth or reactivation, but the nature of the longer-term increases—also seen in biosolids/soil mixtures—suggests regrowth. Differences in numbers between digested and dewatered samples could not be duplicated with high shear processing in lab-scale devices, with nitrogen purging to remove volatile or gaseous constituents, or with redilution using centrate. They could not be attributed to enumeration methods, to interference of *Bacillus* spp. on apparent coliform counts, or to temperature changes. The increases have practical implications in the use of fecal coliform or alternative criteria to define pathogen content in biosolids.

Reactivation and Growth of Non-Culturable Indicator Bacteria in Anaerobically Digested Biosolids After Centrifuge Dewatering. Matthew J. Higgins, Yen-Chih Chen, Sudhir N. Murthy, Donald Hendrickson, Joseph Farrel, Perry Schafer, 2007. *Water Research*, 41(3):665-673

Abstract: Recent literature has reported that high concentrations of indicator bacteria such as fecal coliforms (FCs) were measured in anaerobically digested sludges immediately after dewatering even though low concentrations were measured prior to dewatering. This research hypothesized that the indicator bacteria can enter a non-culturable state during digestion, and are reactivated during centrifuge dewatering. Reactivation is defined as restoration of culturability. To examine this hypothesis, a quantitative polymerase chain reaction (qPCR) method was developed to enumerate *Escherichia coli*, a member of the FC group, during different phases of digestion and dewatering. For thermophilic digestion, the density of *E. coli* measured by qPCR could be five orders of magnitude greater than the density measured by standard culturing methods (SCMs), which is indicative of non-culturable bacteria. For mesophilic digestion, qPCR enumerated up to about one order of magnitude more *E. coli* than the SCMs. After centrifuge dewatering, the non-culturable organisms could be reactivated such that they are enumerated by SCMs, and the conditions in the cake allowed rapid growth of FCs and *E. coli* during cake storage.

Antibiotic resistance in sludge bacteria

Recent studies have confirmed that the use of antimicrobials had created a large pool of antibiotic-resistance genes in bacteria that are detected in sewage sludge and effluent from sewage treatment plants. Antibiotic resistant bacteria were found in higher numbers downstream of sludge-treated farmland as compared to upstream.



Increased Frequency of Drug-resistant Bacteria and Fecal Coliforms in an Indiana Creek Adjacent to Farmland Amended with Treated Sludge. Shivi Selvaratnam and David J. Kunberger, 2004. Canadian Journal of Microbiology, 50(8):653-656

Abstract: Many studies indicate the presence of human pathogens and drug-resistant bacteria in treated sewage sludge. Since one of the main methods of treated sewage disposal is by application to agricultural land, the presence of these organisms is of concern to human health. The goal of this study was to determine whether the frequency of drug resistant and indicator bacteria in Sugar Creek, which is used for recreational purposes, was influenced by proximity to a farmland routinely amended with treated sludge (site E). Surface water from 3 sites along Sugar Creek (site E, 1 upstream site (site C) and 1 downstream site (site K)) were tested for the presence of ampicillin-resistant (AmpR) bacteria, fecal and total coliforms over a period of 40 d. Site E consistently had higher frequencies of AmpR bacteria and fecal coliforms compared with the other 2 sites. All of the tested AmpR isolates were resistant to at least 1 other antibiotic. However, no isolate was resistant to more than 4 classes of antimicrobials. These results suggest that surface runoff from the farmland is strongly correlated with higher incidence of AmpR and fecal coliforms at site E.

Potential ecological and human health impacts of antibiotics and antibiotic-resistant bacteria from wastewater treatment plants. S. Kim and D.S. Aga, 2007. Journal of Toxicology and Environmental Health-Part B-Critical Reviews, 10:559-573.

Abstract: The occurrence of antibiotics and other pharmaceuticals in the environment has become an increasing public concern as recent environmental monitoring activities reveal the presence of a broad range of persistent pharmaceuticals in soil and water. Studies show that municipal wastewater treatment plants (WWTPs) are important point sources of antibiotics and antibiotic-resistant bacteria in the environment. The fate of antibiotics and other pharmaceuticals in WWTPs is greatly influenced by the design and operation of treatment systems. Because knowledge on the fate of antibiotics and resistant bacteria in WWTPs is important in estimating their potential impacts on ecology and human health, investigations on occurrence, treatment, and observed effects are reviewed in this article. In addition, human health risk assessment protocols for antibiotic and resistant bacteria are described. Although data on other pharmaceutical compounds are also presented, discussion is focused on antibiotics in the environment because of the potential link to increased emergence of resistance among pathogenic bacteria. The applications of modern analytical methods that facilitate the identification of novel transformation products of pharmaceuticals in environmental matrices are also included to illustrate that the disappearance of the parent pharmaceuticals in WWTPs does not necessarily equate to their complete removal.

Effect of wastewater treatment on antibiotic resistance in *Escherichia coli* and *Enterococcus sp.* S. Garcia, B. Wade, C. Bauer, C. Craig, K. Nakaoka, and W. Lorowitz, 2007. Water Environment Research, 79:2387-2395

Abstract: The effects of wastewater treatment on the proportion of *Escherichia coli* and *Enterococcus sp.* resistant to specific antibiotics were investigated at two facilities in Davis



County, Utah, one of which received hospital waste. Samples were taken from the influent, effluent before disinfection, and secondary anaerobic sludge digester effluent. There was very little difference in antibiotic resistance among *E. coli* in the inflow waters of the plants but the plant receiving hospital waste had a significantly higher proportion of antibiotic resistant *Enterococcus*. The effect of wastewater treatment on antibiotic resistance was more pronounced on enterococci than *E. coli*. Although some increases in antibiotic resistance were observed, the general trend seemed to be a decrease in resistance, especially in the proportion of multidrug resistant *Enterococcus* sp.

Antimicrobial resistance in *Enterococcus* spp. isolated in inflow, effluent and sludge from municipal sewage water treatment plants. P.M. Da Costa, P. Vaz-Pires, and F. Bernardo, 2006. *Water Research*, 40:1735-1740

Abstract: Antimicrobial resistance of enterococci was investigated in 42 samples of crude inflow, treated effluent and sludge collected in 14 municipal sewage treatment plants of Portugal. A total of 983 enterococci were recovered and tested, using the diffusion agar method, regarding their sensitivity to 10 different antimicrobial drugs. Multidrug resistance was present in 49.4% of the isolates. Only 3.3% and 0.6% of the investigated strains were resistant to ampicillin and vancomycin, respectively. Resistances found against rifampicin (51.5%), tetracycline (34.6%), erythromycin (24.8%) and nitrofurantoin (22.5%), are causes for substantial concern. Almost 14% of isolates were resistant to ciprofloxacin. Wastewater treatment resulted in enterococci decrease between 0.5 and 4log; nevertheless, more than 4.4×10^5 CFU/100ml were present in the outflow of the plants. Our data indicate that the use of antimicrobials had created a large pool of resistance genes and that sewage treatment processes are unable to avoid the dissemination of resistant enterococci into the environment.

Prions

The potential for prions that might be present in wastewater to accumulate in sludges and to persist through treatment is a concern.

Persistence of Pathogenic Prion Protein during Simulated Wastewater Treatment Processes. G.T. Hinckley, C.J. Johnson, K.H. Jacobson, C. Bartholomay, K.D. McMahon, D. McKenzie, J.M. Aiken, and J.A. Pederson, 2008. *Environmental Science and Technology*, 42(14):5254-5259.

Abstract: Transmissible spongiform encephalopathies (TSEs, prion diseases) are a class of fatal neurodegenerative diseases affecting a variety of mammalian species including humans. A misfolded form of the prion protein (PrPTSE) is the major, if not sole, component of the infectious agent. Prions are highly resistant to degradation and to many disinfection procedures suggesting that, if prions enter wastewater treatment systems through sewers and/or septic systems (e.g., from slaughterhouses, necropsy laboratories, rural meat processors, private game dressing) or through leachate from landfills that have received TSE-contaminated material, prions could survive conventional wastewater treatment. Here, we report the results of experiments examining the partitioning and persistence of PrPTSE during simulated wastewater treatment processes including



activated and mesophilic anaerobic sludge digestion. Incubation with activated sludge did not result in significant PrPTSE degradation. PrPTSE and prion infectivity partitioned strongly to activated sludge solids and are expected to enter biosolids treatment processes. A large fraction of PrPTSE survived simulated mesophilic anaerobic sludge digestion. The small reduction in recoverable PrPTSE after 20-d anaerobic sludge digestion appeared attributable to a combination of declining extractability with time and microbial degradation. Our results suggest that if prions were to enter municipal wastewater treatment systems, most would partition to activated sludge solids, survive mesophilic anaerobic digestion, and be present in treated biosolids.

Ecological impacts

Soil microorganisms play a critical role in the functions of soil as a source of plant nutrition and in the cycling of nutrients. Recent research shows that sludge application changes the soil microbial community and decreases its diversity. A number of human-use compounds (such as triclosan found in many personal care products such as antibacterial soaps) bioconcentrate in earthworms where soil has been amended with sewage sludges.

Computational Improvements Reveal Great Bacterial Diversity and High Metal Toxicity in Soil.

Jason Gans, Murray Wolinsky, and John Dunbar, 2005. *Science*, 309:1387-1390.

Sewage sludge greatly reduced the diversity of bacterial species in soils.

Parallel Shifts in Plant and Soil Microbial Communities in Response to Biosolids in a Semi-Arid Grassland. Tarah S. Sullivan, Mary E. Stromberger, and Mark W. Paschke, 2006. *Soil Biology and Biochemistry*, 38 449-459.

Abstract: Approximately 70,150 dry Mg of biosolids from over 450 wastewater treatment facilities are applied to the semi-arid rangelands of Colorado every year. Research on semi-arid grassland responses to biosolids has become vital to better understand ecosystem dynamics and develop effective biosolids management strategies. The objectives of this study were to determine the long-term (~12 years) effects of a single biosolids application, and the short-term (~2 years) effects of a repeated application, on plant and microbial community structure in a semi-arid grassland soil. Specific attention was paid to arbuscular mycorrhizal fungi (AMF) and linkages between shifts in plant and soil microbial community structures. Biosolids were surface applied to experimental plots once in 1991 (long-term plots) and again to short-term plots in 2002 at rates of 0, 2.5, 5, 10, 21, or 30 Mg ha⁻¹. Vegetation (species richness and above-ground biomass), soil chemistry (pH, EC, total C, total N, and extractable P, NO₃-N, and NH₄-N), and soil microbial community structure [ester-linked fatty acid methyl esters (EL-FAMES)], were characterized to assess impacts of biosolids on the ecosystem. Soil chemistry was significantly affected and shifts in both soil microbial and plant community structure were observed with treatment. In both years, the EL-FAME biomarker for AMF decreased with increasing application rate of biosolids; principal components analysis of EL-FAME data yielded shifts in the structure of the microbial communities with treatment primarily related to the relative abundance of the AMF specific biomarker. Significant (p%0.05) correlations existed among biomarkers for Gram-negative and



Gram-positive bacteria, AMF and specific soil chemical parameters and individual plant species' biomass. The AMF biomarker was positively correlated with biomass of the dominant native grass species blue grama (*Bouteloua gracilis* [Willd. ex Kunth] Lagasca ex Griffiths) and was negatively correlated with western wheatgrass (*Agropyron smithii* Rydb.) biomass. This study demonstrated that applications of biosolids at relatively low rates can have significant long-term effects on soil chemistry, soil microbial community structure, and plant community species richness and structure in the semi-arid grasslands of northern Colorado. Reduced AMF and parallel shifts in the soil microbial community structure and the plant community structure require further investigation to determine precisely the sequence of influence and resulting ecosystem dynamics.

Bioaccumulation of Pharmaceuticals and Other Anthropogenic Waste Indicators in Earthworms from Agricultural Soil Amended With Biosolid or Swine Manure. C.A. Kinney, E.T. Furlong, D.W. Kolpin, M.R. Burkhardt, S.D. Zaugg, S.L. Werner, J.P. Bossio and M.J. Benotti, 2008. *Environmental Science and Technology*, 42:1863-1870.

Abstract: Analysis of earthworms offers potential for assessing the transfer of organic anthropogenic waste indicators (AWIs) derived from land-applied biosolid or manure to biota. Earthworms and soil samples were collected from three Midwest agricultural fields to measure the presence and potential for transfer of 77 AWIs from land-applied biosolids and livestock manure to earthworms. The sites consisted of a soybean field with no amendments of human or livestock waste (Site 1), a soybean field amended with biosolids from a municipal wastewater treatment plant (Site 2), and a cornfield amended with swine manure (Site 3). The biosolid applied to Site 2 contained a diverse composition of 28 AWIs, reflecting the presence of human-use compounds. The swine manure contained 12 AWIs, and was dominated by biogenic sterols. Soil and earthworm samples were collected in the spring (about 30 days after soil amendment) and fall (140-155 days after soil amendment) at all field sites. Soils from Site 1 contained 21 AWIs and soil from Sites 2 and 3 contained 19 AWIs. The AWI profiles at Sites 2 and 3 generally reflected the relative composition of AWIs present in waste material applied. There were 20 AWIs detected in earthworms from Site 1 (three compounds exceeding concentrations of 1000 µg/kg), 25 AWIs in earthworms from Site 2 (seven compounds exceeding concentrations of 1000 µg/kg), and 21 AWIs in earthworms from Site 3 (five compounds exceeding concentrations of 1000 µg/kg). A number of compounds that were present in the earthworm tissue were at concentrations less than reporting levels in the corresponding soil samples. The AWIs detected in earthworm tissue from the three field sites included pharmaceuticals, synthetic fragrances, detergent metabolites, polycyclic aromatic hydrocarbons (PAHs), biogenic sterols, disinfectants, and pesticides, reflecting a wide range of physicochemical properties. For those contaminants detected in earthworm tissue and soil, bioaccumulation factors (BAF) ranged from 0.05 (galaxolide) to 27 (triclosan). This study documents that when AWIs are present in source materials that are land applied, such as biosolids and swine manure, AWIs can be transferred to earthworms.



International Standards for Heavy Metals

The USEPA standards for sewage biosolid contaminant concentrations (standards are set for 9 metals) are higher than those in other developed countries and higher than recommendations of scientists in the northeastern U.S. Switzerland has banned sludge application.

Since the 503 rule was promulgated by USEPA, there has been no reassessment of the heavy metal loading limits on agricultural soils set at that time. In fact, there has been no significant research effort in the US to test the assertion by EPA that the very high metal loading limits (by international standards) of the 503 rule have a high safety margin in protecting soil productivity and crop quality.

Two recent large multi-site field investigations measuring the long-term impacts of sludge metals on soil health and crop quality were undertaken independently in Australia and the UK. In the absence of a comparable study of this scale or longevity in the US, the results of the Australian and UK studies are highly useful in developing guidelines for heavy metals in the US.

The Australian study addressed the impact of Cd loading on food crop quality (levels of Cd in edible crops), and Cu and Zn impacts on crop production (phytotoxicity) and soil health (microbial processes). The recommended limits are much lower for most soils than the allowed soil concentrations of Cd, Zn and Cu based on metal loadings permitted by the USEPA 503 rule. However, the study revealed the high sensitivity of harmful metal effects in soils on soil properties such as pH, clay content and organic matter content. Therefore, the recommended limits for the heavy metals vary greatly by soil type, with acid sandy soils being the most sensitive soils to metal additions.

Ban on the Use of Sludge as a Fertiliser. Switzerland: Federal Office for the Environment, 2003. <http://www.bafu.admin.ch/dokumentation/medieninformation/00962/index.html?lang=en&msg-id=1673>.

Bern, 26.03.2003 – The use of sludge as a fertiliser is to be banned throughout Switzerland; in the future sludge will have to be incinerated using an environmentally friendly method. The Swiss Federal Council will modify the Ordinance on Materials accordingly on 1 May 2003. The ban will be introduced in stages: from May this year, sludge may no longer be used in the production of fodder crops and vegetables. A period of transition lasting until 2006 at the latest has been accorded for other types of cultivation which until now have been fertilised using sludge; in individual cases the cantonal authorities may extend this period until 2008. This decision is part of the Federal Council's implementation of precautionary provisions for the protection of soils and public health.

Although sludge contains plant nutrients such as phosphorus and nitrogen it also comprises a whole range of harmful substances and pathogenic organisms produced by industry and private households. For this reason, most farmers already avoid using sludge as a fertiliser since they are



aware of the risk of irreversible damage to the soil, the danger to public health and possible negative effects on the quality of the food they produce.”

Australian recommendations on soil limits for cadmium, zinc and copper

Recommendations of the Australian National Biosolids Research Program on Biosolids

Guidelines. Michael Warne, Mike McLaughlin, Diane Heemsbergen, Mike Bell, Kris Broos, Mark Whatmuff, Glenn Barry, David Nash, Deb Pritchard, Daryl Stevens, Grant Pu, and Craig Butler, 2007. Draft Position Paper.

Executive Summary: A set of soil specific maximum limits for copper and zinc in soils that have received biosolids were derived. These recommended limits state the amount of copper or zinc that can be added to a soil. In acidic, low carbon soils (pH 5, OC 1%) the recommended limit is 25 mg/kg added copper, which increases to 245 mg/kg added copper in alkaline soils (pH 8) irrespective of the organic carbon content. The recommended limits are, depending on the soil properties at a site, considerably smaller to considerably larger than the current limits of 100 – 200 mg/kg total copper. In acidic, low cation exchange capacity (CEC) soils (pH 5, CEC 3 cmolc/kg) the recommended limit for zinc in soils that have received biosolids is 20 mg/kg added zinc, which increases to 300 mg/kg added zinc when the soil pH is greater than or equal to 7.5 irrespective of the cation exchange capacity. Thus, the recommended limits can be considerably lower to marginally higher than the current limits of 200 – 250 mg/kg total zinc, depending on the properties of the soils at sites. Critical soil concentrations of cadmium that would lead to exceedance of the Food Standards Australian New Zealand (FSANZ) standard (0.1 mg/kg) for human consumption were determined across all NBRP sites. The critical values were affected by soil properties, principally soil pH and clay content. A set of recommended soil specific maximum cadmium concentrations in soils that have received biosolids were developed. The recommended limit for total cadmium at a soil pH of 5.5 is 0.6 mg/kg in sandy soils (5% clay or less). In alkaline (pH 7.5 or greater) and clayey soils (25% or greater) the recommended limit for total cadmium in soil is approximately 1 mg/kg or greater. Thus depending on the soil properties at a site the recommended cadmium soil concentration is considerably smaller to considerably greater than the value of 1 mg/kg previously recommended by the National Cadmium Management Committee. From the above recommended limits for cadmium, copper and zinc it is apparent that soils that are acidic combined with either low organic carbon, low clay content or low cation exchange capacity have low critical soil metal concentrations. The critical soil concentrations increased as the pH, organic carbon content, clay content or cation exchange capacity of soils increased. Based on the recommended soil limits, typical metal concentrations in biosolids and current land application practices example masses of biosolids that could be applied cumulatively to land were calculated. For high risk sites as little as 40 to 90 tonnes in total may be added, while at low risk sites between 280 and 970 tonnes in total may be applied. At typical current agronomic application rates of 10 t/ha this translates to 4 to 98 applications.



UK findings on the effect of sewage sludge metals on soil health

The UK study also addressed the impact of Cd loading on food crop quality (levels of Cd in edible crops), and Cu and Zn impacts on soil health (microbial biomass, rhizobium numbers, and microbial respiration). The results suggest that Zn is the metal responsible for the decrease in rhizobial population. It is important to stress that this study was designed to test the adequacy of existing UK limits for Cd, Zn and Cu in agricultural soils (e.g., 200-300 mg/kg for Zn). As some important detrimental effects are being seen, at least in the early years of this long-term study, it is possible that UK limits for these metals will be adjusted lower. The present UK limits are well below those permitted in the US under the 503 rule.

Effects of Sewage Sludge Applications to Agricultural Soils on Soil Microbial Activity and the Implications for Agricultural Productivity and Long-Term Soil Fertility: Phase III, ADAS, Rothamsted Research, Water Research Centre (WRc), 2007.

Project synthesis: During the four years (2002-2006) of this project, significant ($P < 0.05$) responses in soil microbial properties (i.e. rhizobia numbers and microbial biomass size) and agricultural crop quality (i.e. grain Cd concentrations) were measured following the application of metal-rich sludge cakes and metal-amended liquid sludges during Phase I (1994-1997). The soil samples taken in spring 2003 and 2005 at all nine sites in Britain (and additionally in 1999 and 2001 during Phase II of the project) showed significant ($P < 0.05$) responses in rhizobia numbers on the Zn sludge cake treatments, and in soil microbial biomass size on the Zn and Cu sludge cake treatments. Further soil sampling and measurements during future years of this long term study will help to establish whether the effects measured so far are permanent and consistent over time.

Northeastern U.S. application guidelines

A review of published research by 9 scientists from 5 Northeastern states produced recommended limits for heavy metals that are substantially lower than those permitted under the USEPA 503 rule.

Guidelines for Application of Sewage Biosolids to Agricultural Lands in the Northeastern U.S., Ellen Z. Harrison and Uta Krogmann (Eds.), 2007. New Jersey Agricultural Experiment Station, Rutgers Cooperative Extension Bulletin, 36 pp.

Maximum recommended cumulative soil trace element concentration limits for sites to which sewage biosolids are applied are intended to address and protect the agricultural productivity under Northeast soil conditions and for Northeast farming practices and demographics some of which are unique to this region (Table 3).



Table 3. Recommended Maximum Soil Trace Element Concentrations for the Northeast US

Metal	Recommended Maximum Soil Concentration (mg/kg)		
	Sand to loamy sand	Sandy loam to silt loam	Silt to clay
cadmium	1.2	2	3
copper	50	75	120
nickel	30	40	60
lead	120	120	120
zinc	90	150	230

New Technologies as Alternative Beneficial Uses

Application of sewage biosolids is not the only option for recycling this material. New energy recovery technologies make use of the energy embedded in the sludge. Other technologies are in place to make construction material out of sludges.

Emerging Technologies for Biosolids Management, US EPA, 2006.

<http://www.epa.gov/OW-OWM.html/mtb/epa-biosolids.pdf>

Preface: The U.S. Environmental Protection Agency (U.S. EPA) is charged by Congress with protecting the nation's land, air, and water resources. Under a mandate of environmental laws, the Agency strives to formulate and implement actions leading to a balance between human activities and the ability of natural systems to support and sustain life. To meet this mandate, the Office of Wastewater Management (OWM) provides information and technical support to solve environmental problems today and to build a knowledge base necessary to protect public health and the environment well into the future.

This publication has been produced under contract to the U.S. EPA by Parsons Corporation and provides information on the current state of development as of the publication date. It is expected that this document will be revised periodically to reflect advances in this rapidly evolving area. Except as noted, information, interviews and data development were conducted by the contractor. It should be noted that neither Parsons nor U.S. EPA has conducted engineering or operations evaluations of the technologies included. Some of the information, especially related to embryonic technologies, was provided by the manufacturer or vendor of the equipment or technology and could not be verified or supported by full-scale case study. In some cases, cost data were based on estimated savings without actual field data. When evaluating technologies, estimated costs, and stated performance, efforts should be made to obtain current information.



The mention of trade names, specific vendors, or products does not represent an actual or presumed endorsement, preference, or acceptance by the U.S. EPA or the Federal government. Stated results, conclusions, usage, or practices do not necessarily represent the views or policies of the U.S. EPA.

Energy alternatives

Combustion and Land Application Can Both be Beneficial? Roger Tim Haug, Deputy City Engineer City of Los Angeles, F. Michael Lewis, PE, Peter Brady, BE MIEI

Abstract: Both combustion and land application have played important roles in biosolids management practices for many decades. Land application in almost all of its forms has been proclaimed as beneficial use. By contrast, many have viewed combustion as a “disposal only” option, even if energy is recovered in the process and the resulting ash reused. These views and opinions are often proclaimed with no basis or criteria to support the conclusion. Five criteria are presented in this paper for judging whether a management practice is beneficial or not. When judged by these criteria, one can conclude that many combustion installations are beneficial. One can also conclude that land application is beneficial in most, but perhaps not all, installations.”



Gasification presents an opportunity that EPA is promoting.



**U.S. Environmental Protection Agency
Environmental Technology Opportunities
Portal**

**ETOP: Environmental Technology
Council:
Problem Statements:
Recovering the Value of Waste for Environmental and
Energy Sustainability**

[View Team Member List](#)

Project Plan
Waste to Energy Team
January 2005

Environmental Issue:

Two significant environmental problems lead us to explore the environmental benefits of using waste as a source for energy:

First, one of the most challenging issues faced by the municipalities and industry is the sustainable management of wastes and residues generated by our society. The U.S. produces 1.4 Billion Tons of wastes and residue materials per year, impacting air and water quality, decreasing land values, limiting future use of land, and increasing costs to municipalities, industry, and ultimately the consumer. Municipalities, industrial facilities, and universities are particularly challenged in managing the increasing volumes of all kinds of wastes. This is particularly exacerbated in geographic areas experiencing rapid population growth and industrial productivity. In addition, some sectors have unique waste management problems for which the current waste infrastructure does not readily address. Several of these waste related problems were identified in response to EPA's Environmental Technology Council solicitation, such as residues from meat packing and confined animal feeding operations. Several waste to energy technologies, such as various kinds of waste gasification, hold promise for addressing many of these problems. This action team will explore the technical & economic feasibilities and barriers of applying existing and emerging technologies, as well as identify potential research & development to develop new technologies, to help address these problems.

The second challenge lies with our increasing demand for primary energy leading to the depletion of natural resources, the degradation of ecosystems, and generation of significant amounts of solid waste, water pollution, and atmospheric pollution. With U.S. consumption of primary energy increasing at an annual average rate of 2.4%, we will continue to see increasing rates of pollution and environmental degradation, if new technologies are not pursued. The production of energy products permanently consumes coal, natural gas and petroleum resources. The Energy Information Agency predicts that the U.S. domestic supply of natural gas will be exhausted in 50 years while the coal supply will be spent in 250 years. Conservation of these resources is prudent to assure future generations have a source of energy while alternative methods are developed to take the place of these resources in the production of goods and commodities. Residues materials generated in the United States have the potential for supplying 97 Quads of clean domestic renewable energy for use in the United States. The recovery of this untapped source of energy can have a significant impact on the development of sustainable energy production in the United States, while positively impacting the quality of our air, water, and land.

Converting Biosolids to a Renewable Fuel. Michael Moore, Layne Baroldi, Deirdre Bingman, Ray Kearney, 2006. BioCycle, 47(10):32-35.

Orange County CA is working with EnerTech Environmental Inc on a facility to convert 1/3 of their biosolids to energy. The E-fuel is certified as a renewable fuel by CA Energy Commission.



Turning trash into energy in St. Lucie County. TCPalm newspaper editorial, December 1, 2006.

St Lucie County, FL is proceeding with plans to have Geoplasma INC build a plasma arc facility to deal with trash and sludge.

Green Production of Hydrogen from Excess Biosolids Originating from Municipal Waste Water Treatment. B. Bagchi, J. Rawlston, R.M. Counce, J.M. Holmes, and P.R. Bienkowski, 2006. Separation Science and Technology, 41:2613-2628

Rialto, CA OKs Energy Plant at Landfill Site. National Biosolids Partnership. 3/1/06 Weekly Biosolids Update. http://www.biosolids.org/news_weekly.asp?id=1911

Sewage turned into hydrogen fuel. NewScientist.com News Service, April 29, 2002.

RENEWABLE ENERGY: They hope to turn an array of biomass material into fuels by early 2008. John Welsh. The Press-Enterprise, Sept 14, 2006.

Bricks and glass

Sludge can be used to make construction materials including brick and aggregate.

Lightweight aggregate made from sewage sludge and incinerated ash. Ing-Jia Chiou, Kuen-Sheng Wang, Ching-Ho Chen, and Ta-Ting Lin, 2006. Waste Management, 26:1453-1461

Sewage sludge bulks up house bricks. Andy Cohan, August 31, 2002. New Scientist Advances in Envir Research. Chih-Huang Wend, I-Shou U in Kachsiung Co Taiwan.

Sewage vitrification. The Illinois North Shore Sanitary District has a new sludge recycling facility that is the first in the world to convert municipal biosolids into a reusable glass aggregate. Each day, up to 200 tons of municipal biosolids are transformed into 7.5 tons of glass.

Biosolids Reuse as Clear as Glass, 2006. Water Environment Federation, 18(11). <http://www.wef.org/ScienceTechnologyResources/Publications/WET/06/06Nov/06NovemberProblemSolvers.htm>



Please Note: These transcripts are not individually reviewed and approved for accuracy.

MEETING

STATE OF CALIFORNIA

INTEGRATED WASTE MANAGEMENT BOARD

PERMITTING AND ENFORCEMENT COMMITTEE

JOE SERNA, JR., CALEPA BUILDING

1001 I STREET

2ND FLOOR

COASTAL HEARING ROOM

SACRAMENTO, CALIFORNIA

MONDAY, OCTOBER 6, 2003

1:00 P.M.

JAMES F. PETERS, CSR, RPR
CERTIFIED SHORTHAND REPORTER
LICENSE NUMBER 10063

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

APPEARANCES

COMMITTEE MEMBERS

Michael Papanian, Chairperson

Steve Jones

Cheryl Peace

STAFF

Mark Leary, Executive Director

Julie Nauman, Chief Deputy Director

Michael Bledsoe, Acting Chief Counsel

Howard Levenson, Deputy Director

Mark de Bie

Reinhard Hohlwein

Willy Jenkins

Mary Madison-Johnson

Wes Mindermann

Leslie Newton-Reed

Dianne Ohiosumua

Virginia Rosales

Lorraine Van Kekerix

John Whitehill

ALSO PRESENT

Jackie Adams, San Bernardino County LEA

Evan Edgar

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

APPEARANCES CONTINUED

ALSO PRESENT

Louis Flores

Ernie Genter, Lassen County Environmental Health
Department

Lori Holk, Riverside County LEA

Ronald Holst, LA DWP

Dave Hotchkiss, LA Assistant City Attorney

Jeff Meberg, Nursery Products

Steven Sobb

William Spring, LA DWP

Tom Valentino, Lassed Regional Solid Waste Management
Authority

Paul Willman, Waste Management Operator

Mike Wochnick

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1 PROCEEDINGS

2 CHAIRPERSON PAPARIAN: Welcome, everybody. This
3 is the Permitting and Enforcement Committee.

4 Before we get started I need to read an
5 announcement. After I read this announcement, we'll go
6 into the regular meeting. And it has to do with our
7 evacuation drills during the month of October in this
8 building.

9 This month we will be conducting our full
10 building evacuation drill, which will include evacuating
11 this room. This drill will occur without advanced notice
12 and may occur during this meeting.

13 Please look for and note at least two emergency
14 exits are located inside the hearing room and in the
15 connecting halls outside the conference rooms within the
16 remainder of the building.

17 If the alarm sounds, evacuate immediately. Take
18 all your valuables with you. Do not use the elevators.

19 If you have mobility concerns that would prevent
20 you from using the stairways, please let the host of the
21 meeting -- and the host in this case is raising her hand
22 right there -- please let her know so that arrangements
23 can be made to have you wait safely in a protected area.
24 You will be directed to a safe stairway vestibule, and an
25 aid will stay with you until we have heard the all-clear

1 announcement.

2 Follow your meeting hosts down the stairway to
3 the relocation site. All occupants will evacuate to the
4 Cezar Chavez Park located outside the building and across
5 the street in that direction. Obey all traffic signals
6 and be cautious when crossing the street.

7 If you cannot make it down all floors to the
8 evacuation site, you may wait in a stairway vestibule.
9 Please make sure that a member of the emergency team
10 posted in or near the vestibule knows that you are there.

11 Stay at the park until the all-clear signal and
12 the completion of the drill is given. The all-clear
13 signal is a raised green flag that will be posted at the
14 command center set up on the stage. If you do not hear or
15 see the announcement, simply stay with and follow the lead
16 of your meeting host.

17 Thank you for cooperating with our safety
18 program.

19 And, again, this -- at some point during October
20 this floor will be evacuated. Could be today. Could be
21 several weeks from now. So they're going to do it without
22 notice.

23 Okay. Getting on to our regular meeting.

24 Please, if you've got cell phones or pagers,
25 please turn them off or put them in the vibrate mode so

1 they don't interrupt us during the meeting.

2 If you want to speak on any item, there are
3 speaker slips in the back of the room. Fill one out and
4 give it to Ms. Kumpulainien here in the front of the room.

5 And we should do a roll call.

6 Secretary, would you please call the roll.

7 SECRETARY KUMPLAINIEN: Jones?

8 COMMITTEE MEMBER JONES: Here.

9 SECRETARY KUMPLAINIEN: Peace?

10 COMMITTEE MEMBER PEACE: Here.

11 SECRETARY KUMPLAINIEN: Papanian?

12 CHAIRPERSON PAPANIAN: Here.

13 And I want to ask the members for ex partes. But
14 remind you that I'm going to read off a list of ex partes
15 regarding Agenda Item 7, the nursery products item. So
16 you don't need to read off those. I'll be reading off
17 those.

18 Mr. Jones, do you have any ex partes?

19 COMMITTEE MEMBER JONES: All mine are up to speed
20 except Lillian Kawasaki from the L.A. Department of Water
21 and Power on the nursery products. And that conversation
22 basically ended after she accused our staff of not being
23 honest.

24 CHAIRPERSON PAPANIAN: Mrs. Peace.

25 COMMITTEE MEMBER PEACE: I'm up to date.

1 CHAIRPERSON PAPARIAN: Okay. And then other than
2 the ones I'm about to read, I'm up to date.

3 Regarding Agenda Item 7, the Nursery Products
4 item, we did receive quite a few letters late last week
5 which have been ex parte'd in our system. But we have
6 some others that I'm going to orally ex parte.

7 They include letters from John and Rejeana
8 DeHart, received on October 4th; Guadalupe Ramirez,
9 received on October 6th; and also on October 6th letters
10 signed by Raquel Gonzales, Robin Carrillo, Ken McGilp, Ana
11 Suarez, Kimberly Elder, Lydia Hernandez, Darla McGilp, and
12 Ron Ciotta. And finally, also received on October 6th, a
13 letter from Yvonne Evans with the Duffield Electric Boat
14 Company.

15 I wanted to -- and that covers those ex partes.

16 I wanted to especially thank our executive
17 assistants, Donnell Duclo from my office, Selma Lindrud
18 from Mrs. Peace's office, and Jeannine Bakulich from Mr.
19 Jones's office, for working so hard to get all these
20 letters summarized and put into our ex parte system. It
21 turns out there were 127 letters all together that we
22 received. We always welcome the input. But this was one
23 that challenged our ability to get them into the system in
24 time for this meeting.

25 I think we should probably just jump right into

1 the agenda, unless other members have anything before we
2 get started.

3 Mr. Levenson.

4 DEPUTY DIRECTOR LEVENSON: Thank you, Mr.
5 Papparian. Good afternoon, Board members.

6 I have a couple of items I'd like to bring to
7 your attention as part of my monthly report. Then we'll
8 get on with the lengthy agenda today.

9 First of all, I want to give you the final stats
10 that we have, at least the up-to-date stats on the Crippen
11 cleanup. Our Board-managed project to remove debris from
12 the site was completed, as we projected, on September
13 19th, with preliminary costs being in the range of about
14 \$1.8 million, which was well within the Board-approved
15 budget.

16 We ended up having over 4,000 truckloads over 35
17 working days that went out from the site. They took out
18 about 92,000 cubic yards, weighing a little over 100,000
19 tons. So this was a great and expedited cleanup, and
20 we're all glad to see that completed.

21 I also want to update you on the Glass Beach
22 parcel up by MacKerricher State Park in Fort Bragg, which
23 is another Board-managed cleanup. On September 16th, the
24 Coastal Conservancy reported that the Glass Beach parcel
25 had been transferred to the state as a permanent part of

1 MacKerricher State Park. This is another significant
2 cleanup achievement.

3 You'll recall in the early fifties and into the
4 sixties the site was used as a dump right on the
5 oceanfront. And there were several years of exposed burn
6 ash with metal fragments and potential lead exposure that
7 were causing immediate safety concerns.

8 The Board authorized a solid waste cleanup
9 program cleanup in July of 2002. That cleanup was
10 completed in February of this year. And the deed's now
11 been transferred over to the State Park system.

12 Some of the other agencies involved were
13 CalTrans, the Mendocino Land Trust, the North Coast
14 Regional Water Quality Control Board, and the City of Fort
15 Bragg. And our Public Affairs Office is in contact with
16 local reps there about any potential ceremonies
17 celebrating the transfer -- completion of that project and
18 the transfer of the deed.

19 Another item I wanted to alert you to is kind of
20 the issue of communication with LEAs. Some Board member
21 offices have asked myself and some of my staff how we --
22 that we consider how LEAs might be able to communicate
23 their general concerns or issues to the Committee outside
24 of specific agenda items. And at our last meeting with
25 the LEA partnership working group in August this same

1 issue came up. LEAs were asking for more opportunities to
2 interact with Board members.

3 For example, we might want to provide a slot for
4 LEAs as part of this Deputy Director's report on a monthly
5 basis when they wish to take advantage of that, for them
6 to at least raise issues of concern to you.

7 I'll be bringing this up at the next meeting of
8 the Enforcement Advisory Council, which is next week, on
9 October 14th, here in the Board. And if you are
10 interested in joining or attending, you know, part of that
11 meeting, please let me know, and I'll be happy to get you
12 details on it. It's not a -- it's a noticed meeting.
13 It's not noticed in the sense of a quorum of Board members
14 being present. So we need to take a look at that. But if
15 you're interested, let me know.

16 And lastly I just want to mention a number of
17 different workshops and meetings that are coming up in the
18 next month. We have a busy schedule coming up. We had a
19 workshop on September 22nd, the first two workshops about
20 the applicability of new requirements in the Construction
21 and Demolition Debris Processing regs to other regulatory
22 packages. We will have a second workshop here on October
23 30th, and then come back to the Committee in December with
24 feedback and recommendations on that issue.

25 On October 27th, we'll be having a field trip and

1 discussion at the Yolo County Bioreactor Landfill Project
2 under the auspices of the Committee. We're coordinating
3 this in consultation with the Water Resources Control
4 Board as well. This is going to consist of a field trip
5 to the Yolo County Central Landfill beginning at 10
6 o'clock to observe the full scale bioreactor landfill demo
7 project, and then followed up by an early afternoon
8 workshop at a county site with stakeholders to discuss
9 some relative merits and concerns about this technology.

10 That's on our website. It's been noticed. And
11 more details are available on the website.

12 November P&E Committee will be having a morning
13 educational workshop before the Committee on post-closure
14 maintenance financial assurances issues. And then later
15 on that week, November 7th, we'll be having a workshop,
16 the first informal workshop on the long-term gas violation
17 regulatory process regulations that you directed us to go
18 out and have to start that rulemaking. So we'll have an
19 informal workshop on November 7th.

20 That's all I have to report today. And if you
21 have any questions, I'd be happy to answer them.
22 Otherwise, we're ready to go into the agenda items.

23 CHAIRPERSON PAPARIAN: Any questions?

24 Mr. Jones.

25 COMMITTEE MEMBER JONES: I guess one to you, Mr.

1 Chair.

2 The idea of having a slot for the LEAs seems fine
3 to me. But do we need to give -- if it's going to be part
4 of a discussion later this week, should we at least talk
5 about it, and let Howard have some leeway?

6 CHAIRPERSON PAPARIAN: Sure.

7 COMMITTEE MEMBER JONES: Okay. I mean I think it
8 makes sense. There's a lot of things that come down the
9 Board -- or down the road that LEAs are concerned about
10 that I think if there was a more open channel to be able
11 to talk to this Committee, they'd at least be able to get
12 some of these issues out early, as well as maybe give us
13 some heads-up on some issues that we need to be aware of.

14 I wouldn't have a problem. I don't think -- I
15 think we'd have to -- it'd have to be a time-managed issue
16 where we didn't give them a forum of an hour every time
17 they wanted to brainstorm. But they're a pretty good
18 group of cutting to the quick. So I don't know, I think
19 it would make sense.

20 CHAIRPERSON PAPARIAN: I think early on we had a
21 couple panels that included LEA folks. And I think that
22 was -- it was very helpful to the Committee to hear what
23 was going on out in the real world from some of the LEAs.

24 My inclination just sort of process-wise would be
25 probably not necessarily every month. And we may need to

1 notice it -- I've looked to the Legal Office -- but I
2 would think that -- particularly since some of the LEAs
3 may at the same time have other issues coming up that
4 month or the following month, I think it would just be
5 cleaner and easier if we had a noticed agenda item on
6 LEA-related issues.

7 DEPUTY DIRECTOR LEVENSON: What I can do and what
8 I was planning to do with the EAC is just bring this
9 subject up and kind of explore some possibilities. And
10 then can work with you and legal staff to see what's the
11 best way to control that and have it agendized. But the
12 idea was not to have an open forum, but just at least some
13 ability for an LEA rep to say heads-up or "Here's an issue
14 that we're concerned about in general."

15 CHAIRPERSON PAPARIAN: Okay. So you'll bring
16 this back like next month, after you've had a chance to
17 talk to them and get some of their -- Mr. Jones.

18 COMMITTEE MEMBER JONES: Just a follow-up.
19 Do they have a -- I guess maybe one of the
20 questions to ask would be if they have a procedure in
21 place where they'd have somebody sort of internally make
22 sure that there's a request either coming forward through
23 EAC -- or what's the other group?

24 DEPUTY DIRECTOR LEVENSON: CCD --

25 COMMITTEE MEMBER JONES: CCDEH. So obviously

1 there's two groups. I mean we could almost have this
2 thing as a standing issue on all of our Committee
3 meetings. And if they choose to take advantage of it,
4 they do. And if they don't, we'd know ahead of time.

5 But it seemed to me that it would have to be the
6 leadership and not just a random -- they'd have to have
7 some kind of a mechanism in place, I would think.

8 DEPUTY DIRECTOR LEVENSON: Right.

9 CHAIRPERSON PAPARIAN: Yeah, I think we may want
10 to work with them. I mean there may be -- there have been
11 issues that come up in this Committee where some
12 particular LEA's expertise or some particular region is
13 supporting too. So I think -- again, we could talk about
14 this more next month, but I think some give and take in
15 terms of not only frequency but content and maybe who
16 might be most appropriate at certain times, certainly the
17 leadership of those organizations most of the time. But
18 there may be situations where we're particularly
19 interested in what's going on in a rural area or a desert
20 region or something like that where we would maybe want to
21 invite someone specific.

22 DEPUTY DIRECTOR LEVENSON: That sounds fine.
23 We'll explore that, and I'll come back to you with some
24 ideas that we can talk about further.

25 CHAIRPERSON PAPARIAN: Okay. Thanks.

1 Why don't you go ahead with the agenda.

2 DEPUTY DIRECTOR LEVENSON: Okay. Okay. Item B
3 on the agenda is consideration of approval of new sites
4 for the Solid Waste Disposal and Codisposal Site Cleanup
5 Program. I want to draw your attention to the fashion
6 upgrades that Wes Mindermann is displaying.

7 Wes, it's all yours.

8 MR. MINDERMANN: Thank you, Howard.

9 (Thereupon an overhead presentation was
10 Presented as follows.)

11 --o0o--

12 MR. MINDERMANN: Today we have two sites -- or
13 two projects for consideration of the Board under the
14 Solid Waste Disposal and Codisposal Site Cleanup Program.

15 The first project is a proposed Board-managed
16 cleanup and is known as the Palo Corona Ranch Refuse Area
17 in Monterey County. We estimate the cost to be about
18 \$150,000 and are recommending a waiver of cost recovery.

19 The second project is an Illegal Disposal Site
20 Cleanup Grant to the City of Clear Lake for \$492,800 in
21 Lake County. And there will be cost recovery pursued in
22 that case.

23 I'll give a brief summary of each project.

24 --o0o--

25 MR. MINDERMANN: The Palo Corona Ranch Refuse

1 Area is in Monterey County and sits on what was known as
2 the Palo Corona Ranch. It's about 10,000 acres and is a
3 park being -- and is property being acquired for the
4 public benefit.

5 The participating agencies include the Big Sur
6 Land Trust and the Nature Conservancy, both of which are
7 serving as intermediaries to ensure that the property is
8 being put into public hands, and also the Monterey
9 Regional Park District and the California Department of
10 Fish and Game, who will be the recipients of the property.

11 --o0o--

12 MR. MINDERMAN: The project itself is the clean
13 closure of a small burn dump. The area of the burn dump
14 is less than an acre. We estimate the cost to be about
15 \$150,000.

16 Because it is a burn dump, we did go through the
17 site consultation process required under the recently
18 enacted AB 709. We consulted with the Department of Toxic
19 Substances Control, the State Water Resources Control
20 Board, and the Central Coast Regional Water Quality
21 Control Board. Based on that consultation, it was
22 determined that the Board will be the remediation
23 oversight agency in this case.

24 With respect to cost recovery, staff are
25 recommending a waiver, primarily because the public

1 agencies had no involvement in the site during its
2 operation. Both the Land Trust and Nature Conservancy
3 have expended over \$250,000 in remediation expenses on two
4 other sites that are not solid waste disposal sites, but
5 two other sites on the ranch to date. And also because
6 the property is going to be acquired as a park for public
7 benefit.

8 Next slide.

9 --o0o--

10 MR. MINDERMANN: Here I have some pictures to
11 kind of show you what's going on. It's essentially again
12 a small burn dump, that's less than an acre, adjacent to
13 an intermittent stream course.

14 As you can see, there's been a lot of sampling
15 and a lot of data collected on this site to date. And,
16 again, that was all done by the Land Trust and the nature
17 conservancy.

18 Next slide.

19 --o0o--

20 MR. MINDERMANN: Here you can see -- it's
21 difficult to see, but it's a small burn dump. It's well
22 overgrown, extremely vegetated, as you can see.

23 And next slide.

24 --o0o--

25 MR. MINDERMANN: There you can see the stream

1 course that's located at the bottom of the burn dump. I
2 think that's a water heater there in the background.

3 Next slide.

4 --o0o--

5 MR. MINDERMANN: The next project is an Illegal
6 Disposal Site Cleanup Grant to the City of Clear Lake Code
7 Enforcement Department. The Code Enforcement Department's
8 proposing cleaning up 41 privately owned parcels with
9 illegal disposal sites on them and also multiple areas
10 located on public right-of-ways.

11 Due to the location of the properties in urban
12 areas, we've given each one a priority of A-1 based on our
13 Board-approved priority system.

14 The City of Clear Lake has had a previous Illegal
15 Disposal Site Cleanup Grant under the program. Under it
16 they cleaned up 31 parcels, several city right-of-ways.

17 They also, as a result of their active
18 enforcement program and the threat of property being
19 cleaned up, had 27 parcels self-cleaned. So I think the
20 Code Enforcement Department should be kind of given kudos
21 for that. I wish the cleanup program could take credit
22 for it, but it really goes to the city.

23 As a result of that grant, we also cleaned up
24 757.3 tons of solid waste that were either disposed of or
25 recycled, the details of which are in your agenda item.

1 Cleanup Grant to the City of Clear Lake. Both are
2 eligible for program funding. Staff are recommending that
3 the Board approve the projects as proposed and adopt
4 Resolution 2003-467.

5 That concludes my presentation. I'd be happy to
6 answer any questions.

7 CHAIRPERSON PAPARIAN: We do have one speaker
8 slip from a representative of the City of Clear Lake.

9 Any quick questions before we get to him?

10 Mr. Jones.

11 COMMITTEE MEMBER JONES: Just one.

12 Wes, so what you're saying is that there were 58
13 cleanups that year, that they did 31 -- they did 31, 27
14 others happened on their own?

15 MR. MINDERMANN: That's correct.

16 COMMITTEE MEMBER JONES: For a total of 58?

17 MR. MINDERMANN: That's correct. And it wasn't
18 over a one-year period. Usually our grant periods are
19 over three fiscal years. So I can't say it was over one
20 year. I think it was probably over two years at least.

21 COMMITTEE MEMBER JONES: And some of the high
22 costs of this is because you have multiple folks bidding
23 to clean this stuff up?

24 MR. MINDERMANN: Right. That was a concern that
25 was raised. If you look at the cost of the previous grant

1 in your agenda item, we did have -- you know, we spent
2 about \$183,000 and picked up 750 plus tons. If you look
3 at the cost per ton, you know, that's about -- I don't
4 know the calculation --

5 COMMITTEE MEMBER JONES: Two forty.

6 MR. MINDERMANN: -- \$240 per ton.

7 And we did raise some eyebrows on that. But, you
8 know, upon further investigation, most of these sites are
9 small illegal disposal sites. You really don't have the
10 economy of scale that you have on a large illegal disposal
11 site cleanup. All of the projects were competitively bid
12 out. Proper contracting procedures were followed.

13 The other thing that may have raised the price on
14 those was that prevailing wage was paid on all those
15 projects. And when you think about it, you know, the cost
16 of labor, possibly -- in Lake County would be probably
17 around \$13 an hour for a standard laborer. When you throw
18 in the prevailing wage factor into that, your cost of
19 labor goes up to \$20 to \$25 an hour.

20 So, again, I think it's a factor of you have an
21 economy -- you don't have an economy of scale. You have a
22 lot of large urban sites. You have to track the cost
23 because of cost recovery on each project, and it makes it
24 very difficult.

25 I can also say, too, that -- I did discuss it

1 with the City of Clear Lake. And even -- the grant didn't
2 even cover half of their costs in terms of getting these
3 cleanups done. So --

4 COMMITTEE MEMBER JONES: Okay.

5 CHAIRPERSON PAPARIAN: Okay. We do have a
6 representative from the City of Clear Lake. Bill Dunlavy.

7 Sorry if I mispronounced that.

8 MR. DUNLAVY: Mr. Chairman, members of the Board.

9 Yes. And, first of all, I just wanted to thank
10 you for --

11 CHAIRPERSON PAPARIAN: If you could -- why don't
12 you say your name for the record.

13 MR. DUNLAVY: Bill Dunlavy, D-u-n-l-a-v-y, Clear
14 Lake Police Department, City of Clear Lake.

15 I just wanted to thank the Board, first of all,
16 for the ongoing support. As Mr. Mindermann did previously
17 state this grant has helped considerably on voluntary
18 compliance, not just of the expended cleanup costs. The
19 voluntary compliance has been incredible.

20 Just to give an example. Just since the
21 submittal of the grant prior to the consideration meeting
22 we've had over a half a dozen of the proposed sites
23 actually voluntarily comply, and see that we actually are
24 proactively enforcing these to the extent of, you know,
25 complete compliance. And they know that the liens are

1 being placed as a third party on behalf of the Waste
2 Board. So they know it's not just a bluff. They're
3 following through and we're seeing it through voluntarily.
4 And that's something that's been unheard of for the last
5 few years, and we have you to thank. I just wanted to
6 come here personally and thank you for that, and answer
7 any other questions that you may have had of me.

8 CHAIRPERSON PAPARIAN: Thank you. We always
9 appreciate the kudos.

10 MR. DUNLAVY: Thank you.

11 CHAIRPERSON: Any questions?

12 No.

13 Thank you. Thank you for coming up here.

14 COMMITTEE MEMBER PEACE: I just have one question
15 of Wes.

16 How much money are we left with in the 2136 Fund
17 after we fund these two projects?

18 MR. MINDERMANN: Okay. Maybe we can go to the
19 next slide. I always kind of keep this slide here in case
20 this question comes up.

21 Now, before we go too far into this I have to say
22 that this is again kind of the world according to Wes.
23 This is the status of the trust fund based on the fund
24 reconciliation that I get from the Admin and Finance
25 Division.

1 You can see our fund balance as of the 31st of
2 July -- and these are always in arrears a little bit, we
3 lag about two months behind -- was about \$15 million. Our
4 unreserved balance, or the balance that is not in
5 contracts, is not in grants, is about 6.7 million.

6 There are no approved encumbrances that are not
7 indicated in that \$6.7 million. So if the Board goes
8 ahead and approves these projects, you can see that the
9 City of Clear Lake grant will show up as a deduction of
10 \$492,800. We have a proposed encumbrance that we're
11 working on right now for new remediation contracts. And
12 the date on that is incorrect. That will be before the
13 Board for consideration in November.

14 So if the Board approves this, we will have --
15 and the contracts, we'll have about \$3.2 million left for
16 future projects.

17 Now, I have to put a caveat on that. You don't
18 see the Palo Corona Ranch Project anywhere on that list.
19 That project will be held -- will be completed under
20 existing contracts where the money is already encumbered
21 and not shown in that 6.7 million. So we will use
22 existing contract money to do the Palo Corona Ranch
23 Project.

24 The other thing that this does not indicate is
25 that for Fiscal Year 2003-2004, at least right now, we

1 were scheduled to get a \$5 million transfer from the
2 Integrated Waste Management Account. So that transfer
3 usually does not occur until late in the fiscal year
4 unless we need it before then.

5 So right now we'll have 3.2 million, give or
6 take, for future projects with existing funds in the trust
7 fund.

8 COMMITTEE MEMBER PEACE: Okay.

9 CHAIRPERSON PAPARIAN: I had a quick question for
10 you.

11 On the resolution, the last "resolved" clause
12 makes the award conditioned upon payment of any
13 outstanding debt owed to the Board.

14 Do one of these entities owe something to the
15 Board? Or is that just a standard thing you're putting in
16 there?

17 MR. MINDERMANN: That clause is just standard for
18 grants. So we condition the award of the grant on the
19 payment of any outstanding debt to the Board within 90
20 days.

21 CHAIRPERSON PAPARIAN: Okay. Thank you.

22 Anything else?

23 COMMITTEE MEMBER JONES: Mr. Paparian?

24 CHAIRPERSON PAPARIAN: Mr. Jones.

25 COMMITTEE MEMBER JONES: I'll move adoption of

1 Resolution 2003-467, consideration of new sites for the
2 Solid Waste Disposal and Codisposal Site Cleanup Program.

3 COMMITTEE MEMBER PEACE: Second.

4 CHAIRPERSON PAPARIAN: There's been a motion and
5 a second.

6 Secretary, call the roll.

7 SECRETARY KUMPLAINIEN: Jones?

8 COMMITTEE MEMBER JONES: Aye.

9 SECRETARY KUMPLAINIEN: Peace?

10 COMMITTEE MEMBER PEACE: Aye.

11 SECRETARY KUMPLAINIEN: Papanian?

12 CHAIRPERSON PAPARIAN: Aye.

13 I think this would be a candidate for fiscal
14 consensus, although it still has to go to the Budget and
15 Admin Committee.

16 Next item.

17 DEPUTY DIRECTOR LEVENSON: Just getting the folks
18 up here.

19 Okay. Agenda Item C. We now go into a series of
20 permit items.

21 Agenda Item C is consideration of a Revised Full
22 Solid Waste Facilities Permit (Disposal Facility) for the
23 Barstow Sanitary Landfill, San Bernardino County.

24 And Dianne Ohiosumua will be presenting that.

25 MS. OHIOSUMUA: Good afternoon.

1 This item was revised late last Friday as
2 amendments to the JTD were received on September 22nd and
3 a revised proposed permit was received on September 29th,
4 2003. Attachment No. 2 was replaced with a correct site
5 map.

6 The Committee should have before them a revised
7 agenda item, a revised resolution, and a revised proposed
8 permit. The website has been updated. And copies of
9 these documents are also available at the back table for
10 interested parties.

11 The Barstow Sanitary Landfill is located
12 approximately three miles from the City of Barstow. It is
13 owned and operated by the County of San Bernardino Solid
14 Waste Management Division.

15 The proposed permit will allow an increase in the
16 maximum tonnage from 525 to 750 tons per day. And the
17 hours of site activities may include receiving up to six
18 transfer trucks from the Big Bear Transfer Station per day
19 between 7 a.m. and 8 a.m., Monday through Saturday.

20 The initial submittal was made in a timely manner
21 and the package was complete.

22 The minor changes in the revised proposed permit
23 was made at the request of Board staff.

24 The LEA has certified that the application
25 package is completed and correct and that the report of

1 facility information meets the requirements of the
2 California Code of Regulations. The LEA has determined
3 that the California Environmental Quality Act has been
4 complied with.

5 At the time this item was prepared staff was
6 still reviewing and analyzing the proposed permit and the
7 CEQA record. Board staff has now completed our review of
8 the latest proposed permit and the supporting documents
9 and have determined that the CEQA record is consistent
10 with the latest proposed permit and all the requirements
11 have been met.

12 Staff recommends that the Board adopt Solid Waste
13 Facility Permit Decision No. 2003-468, concurring with the
14 issuance of Solid Waste Facility permit No. 36-AA-0046.

15 Representatives from the San Bernardino LEA and
16 the operator are here to answer any questions you may
17 have.

18 That concludes staff presentation.

19 CHAIRPERSON PAPARIAN: Any questions, members?

20 Mr. Jones.

21 COMMITTEE MEMBER JONES: Just one question.

22 The six transfer loads from Big Bear, you're
23 saying between 7 and 8?

24 MS. OHIOSUMUA: Yes.

25 COMMITTEE MEMBER JONES: Otherwise they can take

1 all the transfer loads they want from 8 o'clock on?

2 MS. OHIOSUMUA: Yes.

3 COMMITTEE MEMBER JONES: And that's clear?

4 MS. OHIOSUMUA: Yes, it is.

5 COMMITTEE MEMBER JONES: Okay. I just worry
6 sometimes, you know.

7 MR. de BIE: Mr. Chair?

8 CHAIRPERSON PAPARIAN: Yes.

9 MR. de BIE: Mark de Bie with Permitting and
10 Inspection, just to clarify about the resolution.

11 The revised resolution is in BAWDS, so it's
12 publicly noticed there. And the only changes to that
13 resolution were to remove the sort of placeholder language
14 that we include when we're still in the process and
15 replace it with the final findings for staff. So I just,
16 for the record, wanted to clarify that issue.

17 CHAIRPERSON PAPARIAN: Okay. Mr. Jones.

18 COMMITTEE MEMBER JONES: Just one other question.

19 With the bark beetle issues that are creating
20 such havoc in southern California, we've had to, I know,
21 change -- give some waivers for some transfer stations to
22 make sure they could get material through. Was that an
23 issue with this site? Are they receiving any of this
24 material?

25 MS. OHIOSUMUA: They are receiving some of the

1 material.

2 COMMITTEE MEMBER JONES: But their permit
3 limitations are okay for right now? Meaning, is there
4 enough room in there as we go through this disaster in the
5 mountains, or are we going to have to continue to give
6 exemptions under an emergency to house this material?

7 MS. OHIOSUMUA: Let me correct that or get
8 clarity. The transfer station is impacted, but the
9 landfill is not being impacted. They're getting more
10 loads, but their capacity is --

11 COMMITTEE MEMBER JONES: They're well under their
12 permitted tonnage acceptance-wise?

13 MS. OHIOSUMUA: Yes. And they are also -- this
14 proposed permit would allow them to increase their
15 tonnage.

16 COMMITTEE MEMBER JONES: Okay. That's all.
17 Thank you. I appreciate it.

18 CHAIRPERSON PAPARIAN: Okay. Mrs. Peace.

19 COMMITTEE MEMBER PEACE: I had a question.

20 Hearing that -- seeing that the latest proposed
21 permit didn't come in until September 29th, does staff
22 feel like they've had enough time to adequately review?

23 MS. OHIOSUMUA: Yes, we do. There were minor
24 changes that we have requested from the LEA. So we felt
25 that we had plenty of enough time -- we had plenty of time

1 to review it.

2 COMMITTEE MEMBER PEACE: Okay. Thank you.

3 CHAIRPERSON PAPARIAN: Mr. Jones.

4 COMMITTEE MEMBER JONES: Thanks, Mr. Chair.

5 I'll move adoption of consideration of a Revised
6 Full Solid Waste Facility Permit (Disposal Facility) for
7 the Barstow Sanitary Landfill in San Bernardino County.

8 COMMITTEE MEMBER PEACE: Second.

9 CHAIRPERSON PAPARIAN: And that will be
10 Resolution 2003-468 revised.

11 Secretary, call the roll.

12 SECRETARY KUMPLAINIEN: Jones?

13 COMMITTEE MEMBER JONES: Aye.

14 SECRETARY KUMPLAINIEN: Peace?

15 COMMITTEE MEMBER PEACE: Aye.

16 SECRETARY KUMPLAINIEN: Papanian?

17 CHAIRPERSON PAPARIAN: Aye.

18 A candidate for consent?

19 COMMITTEE MEMBER JONES: Yes.

20 CHAIRPERSON PAPARIAN: Yes. Okay.

21 Next item.

22 DEPUTY DIRECTOR LEVENSON: Okay. Next item,
23 Committee Item D is consideration of a new Full Solid
24 Waste Facilities Permit (Compostable Material Handling
25 Facility) for the Nursery Products LLC, San Bernardino

1 County.

2 And as Mrs. Peace noted and Mr. Paparian noted,
3 we've received roughly 120 odd letters about this starting
4 late Thursday afternoon and continuing on into this
5 morning.

6 So we have a presentation that Dianne will be
7 making for you on this item.

8 MS. OHIOSUMUA: This item was revised late last
9 Friday as amendments to the report of composting site
10 information and a revised proposed permit was received on
11 October 3rd, 2003.

12 The Committee should have before them the revised
13 proposed permit.

14 CHAIRPERSON PAPARIAN: Hold on just a second. I
15 think maybe it's being passed out.

16 SECRETARY KUMPLAINIEN: It's coming.

17 CHAIRPERSON PAPARIAN: Do we have a revised
18 Agenda Item 2 or just the revised permit at this point?

19 MS. OHIOSUMUA: Just the proposed permit at this
20 time.

21 CHAIRPERSON PAPARIAN: Okay.

22 MR. de BIE: Again, Mark de Bie, Permitting and
23 Inspection. You're getting copies of it. And just for
24 the record, this version of the permit is in the BAWDS
25 system, so it's available there, too.

1 CHAIRPERSON PAPARIAN: Okay. Go ahead.

2 MS. OHIOSUMUA: The Committee should -- okay.
3 You have that.

4 The item will have to be updated on our website
5 at a later date.

6 A copy of the revised proposed permit is on the
7 back table for interested parties.

8 The Nursery Products LLC is located in Adelanto.
9 It is owned and operated by Nursery Products LLC.

10 Currently, the facility is operating under a
11 standardized composting permit which is inadequate and
12 inconsistent with the current regulations that were
13 adopted in April 2003.

14 The proposed permit is for a Full Solid Waste
15 Facility Permit with conditions that would give the LEA
16 the ability to better regulate this facility. The
17 proposed permit will allow the facility to receive a
18 maximum tonnage of 4,000 tons per day and the traffic
19 volume to be 2,000 vehicles per day.

20 The changes in the revised proposed permit that
21 you have that was dated October 3rd are listed -- I will
22 tell you what they are right now.

23 On page 1, section 4, you will see that the LEA
24 has added a condition there, right next to the hours of
25 operation.

1 On page 2 --

2 DEPUTY DIRECTOR LEVENSON: Excuse me. Just for
3 clarification, that's condition AA on the proposed permit
4 that's reflected on page 1?

5 MS. OHIOSUMUA: Yes.

6 On page 2, on section 15, you will see that the
7 LEA has added some updates to the report of composting
8 site information.

9 In section 13(a) there's also a correction
10 indicating that the finding for PRC 5001 is for the
11 nondisposable site element.

12 On page 4 and 5 the LEA has done some rewording
13 of condition number -- I mean condition letter K,
14 condition letter O, condition letter S, and condition
15 letter U. And they've -- they reworded those conditions
16 just for clarity.

17 On page 5, you will notice that there are three
18 additional LEA conditions that had been added to this
19 revised proposed permit.

20 The LEA has certified that the application
21 package is complete and correct and that the reported
22 facility information meets the requirements of the
23 California Code of Regulations. The LEA has determined
24 that the California Environmental Quality Act has been
25 complied with.

1 Board staff has determined that the report of
2 composting site information is complete. However, Board
3 staff is still in the process of reviewing the revised
4 proposed permit and the CEQA record in light of the
5 recently received public comments.

6 Representatives from the San Bernardino County
7 LEA and the operator are here to answer your questions.

8 CHAIRPERSON PAPARIAN: So we have the LEA and
9 operator here.

10 I also have three speaker slips.

11 Do the LEA and operator want to say anything
12 before I go to the speakers, or just answer any questions
13 that might come up? I'll leave it up to them.

14 MS. OHIOSUMUA: The LEA doesn't have anything to
15 say.

16 CHAIRPERSON PAPARIAN: And what about the
17 operator?

18 MS. OHIOSUMUA: And the operator doesn't have
19 anything to say at this time.

20 CHAIRPERSON PAPARIAN: Okay. So why don't we go
21 to our speakers. I have -- I don't know if these are
22 coordinated or not, but I have David Hotchkiss, Assistant
23 City Attorney, the City of Los Angeles; Ronald Holst from
24 LA DWP; and William Spring from LA DWP.

25 MR. HOTCHKISS: Good afternoon. I'm David

1 Hotchkiss, Assistant City Attorney. And I want to
2 maximize our time here and be as coordinated as possible.

3 I'd first like to have Mr. Holst, who's the
4 operating plant manager, speak to the specific issues that
5 have arisen at the Adelanto facility.

6 Next I'd like Mr. Bill Spring, who is the
7 assistant general manager in charge of the power plant
8 operations, speak about the potentials that are arising
9 because of the operations of this facility in terms of the
10 western power grid.

11 And then finally I'd like to make a cumulative
12 statement at the end.

13 Mr. Holst.

14 MR. HOLST: Yes, my name's Ronald Holst. I'm the
15 electrical maintenance supervisor at the Adelanto
16 Converter Station and Switching Station.

17 Nursery Products has severely impacted our
18 facility since they've been there with the dust, the
19 odors, and the flies. It's a health hazard and a safety
20 hazard for my people. My people work in manlifts out in
21 the yard. And there are times when the odors and the
22 flies are so bad, their eyes burn, their noses run. I've
23 had to buy mosquito nets for my people to work with, the
24 flies have been so bad.

25 That's not very conducive to safe work practices.

1 It's also making a significant -- the dust and the debris
2 are making a significant impact on our station. We're
3 engulfing dust and debris into our cooling towers, into
4 our water system.

5 This facility is a major part of the grid. It
6 just doesn't serve the City of Los Angeles. It serves the
7 Western System Circulating Council, because we put power
8 on the grid for southern California. There's eight
9 500,000 volt lines that terminate in that station, with a
10 capability of three to four billion watts of power.
11 That's enough power to serve probably four million people
12 and the businesses that go along with them, including the
13 harbor city -- L.A.'s harbor and the airport, everything.

14 We provide power off of the grid. Partners to
15 that facility are Burbank, Pasadena, and Anaheim and
16 Riverside. So I represent not only my people that are
17 being impacted, but all the citizens that are rate payers
18 that are getting power off of the system.

19 The dirt that is accumulating on our high voltage
20 equipment -- at 500,000 volts, it's searching for ground.
21 When there's extreme amounts of debris, we can get
22 flashovers. We can get flashovers from too much debris in
23 the air. We can get -- which blows equipment up.

24 We have -- the power that we're getting comes
25 from all over the southern transmission system. We have

1 two lines of DC, which is a million volts of potential
2 between the two of them, that bring dedicated generators
3 from Delta, Utah. I have generally 1840 megawatts of
4 power on those two DC lines -- just those two DC lines.

5 If those pieces of equipment go down, we
6 immediately lose 1,800 megawatts of power. And when those
7 generators go off line, I got nowhere to put it. I have
8 to try to reroute it and put it around the whole grid.

9 If you guys and this Committee allow this thing
10 to become ten times bigger, it's going to have a dramatic
11 effect on that station. It's already impacting the
12 station incredibly right now. But if you make it ten
13 times bigger, it's going to really hurt the reliability of
14 that station. The reliability of that station is
15 intricate to the western grid.

16 Thank you.

17 CHAIRPERSON PAPARIAN: I think we have -- we
18 might have a question before you leave.

19 MR. HOLST: Sure.

20 CHAIRPERSON PAPARIAN: Mr. Jones and then Mrs.
21 Peace.

22 COMMITTEE MEMBER JONES: Thanks, Mr. Chair.

23 Do you have practices and procedures to get dust
24 off of your system normally?

25 MR. HOLST: Yes, we do. But some of this

1 equipment, like the 500 DC lines, I can only take out once
2 a year. And I take out half of it for two weeks and I
3 take the other half out for two weeks. That's it.

4 COMMITTEE MEMBER JONES: There's no external way
5 to do -- what do you do when the Santa Ana's are blowing?

6 MR. HOLST: The station was built for the normal
7 desert dust. It was engineered for that. Not the
8 increase of this facility. This facility, with the dust
9 from the traffic, the compost material is coming on in the
10 air, it's blowing -- the dust devils pull up in the air.
11 It puts it all over my whole facility. It sucks it into
12 the intake of my cooling towers. The cooling towers have
13 to cool the -- valves that change AC to DC. All that
14 stuff takes increased maintenance.

15 COMMITTEE MEMBER JONES: But when the Santa Ana
16 winds are blowing, do you shut your plant down?

17 MR. HOLST: No, sir.

18 COMMITTEE MEMBER JONES: So your plant can handle
19 the Santa Ana -- I used to run the landfills in that
20 county. I have a pretty good idea about what that wind is
21 like.

22 MR. HOLST: Yes, sir.

23 COMMITTEE MEMBER JONES: And I'd also run some
24 composting facilities. And there's no comparison --

25 MR. HOLST: I can tell you right now that there

1 is a significant increase on my converter station
2 bushings, through-the-wall bushings as well as my
3 transformer bushings.

4 COMMITTEE MEMBER JONES: I don't doubt that there
5 isn't an increase in there. There could be an increase.
6 I don't know what the source of that increase is until I
7 go down and look.

8 But what I'm asking -- it's almost -- I almost
9 had a sense that this is almost like preventative
10 maintenance, this -- all of a sudden they have 125 people
11 objecting to it, considering they were informed by letters
12 that were passed around by power and water employees.

13 MR. HOLST: Those people need help. They're not
14 getting any help from their government agencies. Okay?
15 They don't know who to complain to. They do not -- they
16 were not notified that this facility was even coming in
17 there. And if you make it tenfold, it's going to very
18 much impact their lives and their businesses. It's going
19 to impact ours, I'm telling you.

20 COMMITTEE MEMBER JONES: Okay. And we have to
21 look at the mitigations, that needs to happen. But I'm
22 really -- still want to get an answer as to: During the
23 Santa Ana winds how much of a dust load is on your system?
24 I mean what is it comparative to what your daily stuff is
25 now?

1 MR. HOLST: I don't quite understand. There's a
2 significant amount of dust. Okay?

3 COMMITTEE MEMBER JONES: From the Santa Ana's?

4 MR. HOLST: From the Santa Ana's.

5 COMMITTEE MEMBER JONES: More or less than what's
6 coming off of this facility on a daily basis?

7 I'm trying to put this -- you're telling me the
8 world's going to end. And I'm trying to figure out --

9 MR. HOLST: I'm not telling you that the
10 world's --

11 COMMITTEE MEMBER JONES: -- I'm trying to figure
12 out what --

13 MR. HOLST: -- going to end. I'm telling you
14 that there's going to be a significant increase to the
15 risk to the power system. With all that dirt in the area
16 we have much more potential for flashover. I don't know
17 what's in the --

18 COMMITTEE MEMBER JONES: Right. And so my
19 question was, what are your normal maintenance procedures
20 for just ancillary dust that's sitting on your lines or in
21 that area? Do you blow them down? Do you -- you know,
22 without having to take the whole system down, is there a
23 maintenance program --

24 MR. HOLST: The AC part of the yard we can wash
25 hot. Some of it we can get out -- isolate to get out.

1 To clean the DC side, pretty much stays as it is
2 till March of every year when I can get to it. And it's
3 not that I can't get it. It's that it doesn't go down.
4 Those generators are cranking power.

5 COMMITTEE MEMBER JONES: Sure. It's the normal
6 time. I gotcha.

7 MR. HOLST: And we have protective coating on the
8 converter transformers to help with the dirt. I sent
9 pictures to the manufacturer that makes the coating for
10 those transformers to increase the dielectric strength of
11 them for the material that's on them. And when I sent
12 them the pictures of them, they told me that there is a
13 limit to what -- how much that dielectric coating can do.
14 Okay?

15 COMMITTEE MEMBER JONES: Okay.

16 CHAIRPERSON PAPARIAN: Mrs. Peace.

17 COMMITTEE MEMBER PEACE: I guess my question
18 was -- the Board issued this composting permit to Nursery
19 Products in February of 2002. Did you notice the
20 increased dust problem and fly problem right away? Or is
21 this just something that's gotten worse the last couple
22 months?

23 MR. HOLST: After they -- no. After they started
24 putting their material in is when we started noticing the
25 significant difference.

1 They had more trucks in there. They had
2 equipment moving around. The smell was immediate when
3 they started putting the bio-solids in there with the
4 green waste. And the flies came right away. And at the
5 start they were overwhelming. I don't know if you have
6 pictures of what I took of pictures of the flies around my
7 facility. I mean that's the kind of stuff my people are
8 trying to work in. And our safety regulations -- it's 11
9 feet 3 inches we have to be away from the equipment. And
10 when they're so engrossed by swatting flies and their eyes
11 are burning and their noses are running from this compost
12 material, they're not paying good attention to what
13 they're doing.

14 It doesn't take much of a mistake at 500,000
15 volts to kill somebody.

16 COMMITTEE MEMBER PEACE: And are the flies bad
17 all year round or is it just certain times of the year
18 that they seem to be worse or is it --

19 MR. HOLST: The flies were really bad after the
20 first of the year. They got a little bit better. And
21 when the weather started cooling off and the fly season is
22 supposed to be going down, it heated up again. And the
23 stink and the flies came right back.

24 I've been spraying our facility every two to
25 three weeks around the buildings to try and keep the flies

1 down and away from the buildings, because even the
2 buildings get flies in them. You can't drink a cup of
3 coffee in my office without having two or three flies in
4 your cup of coffee. I mean it's just -- it's awful. I
5 used to talk on the phone with one hand and have a fly
6 swatter in the hand -- in the other.

7 People come to our facility. I have outside
8 people -- support people to come in on my facility to do
9 work for us, other than from the Los Angeles Department of
10 Water and Power. They don't even want to come because the
11 working conditions are so bad. That's their job and they
12 don't want to come. Out-of-town work is voluntary.

13 The situation -- if you guys approve this and
14 make it ten times bigger, we're going to have big
15 problems. We're going to have labor issue problems.
16 We're going to have reliability problems. The reliability
17 affects all of our rates. Rates are based on reliability.

18 COMMITTEE MEMBER PEACE: Thank you.

19 CHAIRPERSON PAPARIAN: Okay. Thank you.

20 MR. SPRING: Hi. My name is Bill Spring. I'm
21 the Assistant Director of the Power Supply Operations
22 Business Unit for the Department of Water and Power.

23 Our concern from a management point of view --
24 and I know our general manager sent a letter to the Board
25 here expressing the Department's concern -- is as Ron

1 says, approximately two million watts of power flow across
2 the DC line from Delta, Utah, and enter -- to Adelanto.
3 And then the associated AC switching yard that Ron talks
4 about supports another 2,000 -- or two billion watts.

5 So basically about four billion watts of power
6 flowed through this facility. The failure of this
7 facility catastrophically could result in blackouts and/or
8 something akin to what happened in New York if our
9 equipment didn't work right.

10 Now, there's also the equipment that we need to
11 have work also with PG&E and Southern California Edison
12 and San Diego Gas and Electric.

13 So we're real concerned about the impact that
14 this Nursery Products composting facility is having on our
15 ability to serve our customers as well as the people in
16 the western United States. I'm not sure whether you
17 realize, but the whole electrical system in the western
18 United States is tied together.

19 So that somewhat happened in New York as things
20 cascaded throughout the system.

21 Now, we have a much better system here, and we
22 don't expect that to happen. But we are concerned about
23 the loss of four billion watts at one time on the ability
24 of the system to respond to that kind of a problem.

25 We have tried to work with Nursery Products and

1 talked to them. And they assured us they were looking for
2 another facility to relocate their composting. But I
3 guess they haven't been able to locate one. We didn't
4 expect them to be asking to increase the size of the
5 facility by tenfold, and that does really concern us.

6 Certainly, Mr. Jones, we can do more and more
7 maintenance, which is going to cost money. I suppose the
8 Department has the money. Although we would prefer not to
9 have to do the additional maintenance. We did design the
10 facility to withstand the environment that it was located
11 in years back when we spent over \$170 million on this
12 facility.

13 So we're really concerned that we get some kind
14 of resolution to this problem. We want Nursery Products
15 to not expand their facility and work on relocating.

16 As you said, we have queried the people in the
17 community to let them know of what's going on here. Most
18 of them are small businesses that were unsure as to where
19 they would raise their concerns, and that's why we were
20 the advocate to show them where they could send their
21 concerns to. We freely admit that.

22 Basically we would like to see at least this
23 current permit expansion to be halted until we have a
24 chance to explore alternatives with Nursery Products.

25 Thank you.

1 CHAIRPERSON PAPARIAN: Any questions?

2 Mr. Jones.

3 COMMITTEE MEMBER JONES: I understand your stuff,
4 but I just -- I always worry about people that just want
5 to, you know, draw a line in the sand. And so the fact
6 that you want to work with them, that -- I mean it's a
7 little glimmer of hope for me.

8 What do you do -- I mean you got power lines all
9 throughout southern California. So you have tree
10 trimmings and all these other things. I know you've
11 got -- you're dealing with the bark beetle death issues.
12 Is that material getting ground up and going to composting
13 facilities, or is it all going to landfill or land
14 application?

15 MR. SPRING: You mean what we do --

16 COMMITTEE MEMBER JONES: -- when you maintain
17 under your lines and --

18 MR. SPRING: -- when we're tree trimming in the
19 city?

20 COMMITTEE MEMBER JONES: Yeah, as you maintain
21 around your lines, some of your lower lines and things
22 like that.

23 MR. SPRING: Actually, Mr. Jones, a lot of the
24 material that's going into Nursery Products is coming out
25 of the City of Los Angeles. It's stuff that's not going

1 into the landfill that we are recycling through a
2 composting program. We have not only this facility but
3 other facilities that the city sanitation department deals
4 with.

5 COMMITTEE MEMBER JONES: We were given a report
6 last Board meeting about issues with you folks, Southern
7 Ed, and a lot of other things about the bark beetle death
8 and the amount of trees that are going to start coming
9 down. And I think you guys were cranking up your efforts
10 even more so to get them away from the houses and stuff
11 that you serve or near where you serve.

12 But most of that material's going to composting
13 facilities?

14 MR. SPRING: As far as I know. I'm not
15 completely familiar with that program because that's in
16 our distribution section mainly. Although the high
17 voltage lines don't usually have anything growing on them.

18 COMMITTEE MEMBER JONES: Or under them.

19 MR. SPRING: Or under them, right. But I'm
20 pretty confident that we have -- as the City of Los
21 Angeles, we are committed to recycling. And I'm sure that
22 we do move a lot of that product into composting
23 facilities rather than into the landfill.

24 COMMITTEE MEMBER JONES: Thanks.

25 CHAIRPERSON PAPARIAN: Have you looked at

1 possible mitigation measures that the operator can take at
2 the existing location?

3 MR. SPRING: Well, as Mr. Holst said, you know,
4 the facility was designed to take the environment where
5 it's located.

6 CHAIRPERSON PAPARIAN: No, I don't mean your
7 facility. I mean the composting facility. Have you
8 looked at -- would you recommend any additional mitigation
9 measures? Is there anything you're aware of that could
10 help mitigate the impacts you're concerned about through
11 actions that they could take?

12 MR. SPRING: Well, we've cooperated with them.
13 We've used our vector control and they've used some kind
14 of vector control to keep the flies down. That seems to
15 be a losing battle.

16 The dust mitigation. We've come to agreement
17 that they would put water on the roads going in and out of
18 there. But we fail to see that that's being done. A
19 number of things that they've agreed to do to mitigate
20 this don't -- either they're not doing it or it doesn't
21 seem to be working.

22 CHAIRPERSON PAPARIAN: Okay. Anything else?

23 Thank you.

24 MR. SPRING: Thank you.

25 MR. HOTCHKISS: Good afternoon. Again, I'm David

1 Hotchkiss, Assistant City Attorney.

2 Mr. Papanian, to address your question, based
3 upon the reading I've done and the research I've done in
4 the situation, it appears that the only thing that could
5 protect the City of Los Angeles's Adelanto Converter and
6 Switching Station from the potentials that we're talking
7 about today, that is, flashover and resultant fire or
8 electrocutions that might occur in the existence of
9 flashover, would be to encapsulate this facility, meaning
10 that you would have to separate the facility from the
11 environment that surrounds it. And in terms of the
12 offensive orders that's being propagated there, they would
13 have to put in some kind of a filtration system, which is
14 common in the Ohio Valley and other places where these
15 type of facilities are operated.

16 But that of course appears to be an
17 insurmountable expense on a 40-acre site. But that's just
18 from my perspective.

19 I'd like to talk just for a few minutes about the
20 community that this exists in, not just our 40 workers who
21 are on the plant, which is separated by Pansy Road from
22 the Nursery Products facility. We are one small city
23 street separated with \$170-some million switching and
24 converter station, which is absolutely integral to the
25 electrical grid in the western United States.

1 We have people who historically were able to work
2 out of doors and work on these facilities day in, week
3 after week, without any kind of protective clothing at
4 all. Now they're going out into the field wearing bee
5 keeper hats to keep the flies out of their noses, out of
6 their eyes.

7 Now, I've gone through the permit that was
8 previously issued in this matter. And I note in
9 particular that they were required under the permit to not
10 allow any vectors, to have any offensive noises emanating,
11 and to keep dust control to an absolute minimum under the
12 existing permit. They haven't lived up to their existing
13 permit.

14 The physical evidence that we've put before you
15 and the points that have been made by Mr. Holst make it
16 graphically clear that not only our employees, but -- but
17 when we canvassed the people in the community who said to
18 us, "We didn't know where to turn," we called the City of
19 Adelanto's manager -- the city manager, and he referred us
20 to the Nursery Products organization to get help.

21 The city couldn't help them. The county has been
22 unable to help them. And we, the switching station, pay
23 \$2 million a year in taxes to the County of San
24 Bernardino, and it has been able to do nothing to
25 facilitate a remedial action in this situation.

1 Now, I think the most graphic thing that I've
2 read today -- because I have received these reports at the
3 same time you did -- was the report of Melva Davis, who is
4 the principal of the public school in this immediate
5 vicinity. And if you'll give me a moment, I'd like to
6 read this into the record.

7 She says, "The odor and fumes from the company
8 are seriously strong. There are days when the smell is
9 extremely foul. Students complain of headaches and
10 stomachaches. We are infested with flies. It is often
11 difficult to guarantee that foods served in our school
12 cafeteria are healthy for our students and staff. Because
13 we have preschool through 8th grade students we cannot
14 spray to eliminate the flies. Our primary concern is the
15 safety of all the students, parents, and staff. Thank you
16 for this opportunity to voice our concern."

17 These people have had no prior opportunity, no
18 real opportunity to voice their concern.

19 And as I went through all of these reports that I
20 received today, there were property owners, business
21 operators, people who have been suffering under this thing
22 for almost a year now with no avenue for relief from these
23 ongoing flies and obnoxious odors. And of course in our
24 situation we're hyper-concerned about the dust. But we're
25 also concerned about the noxious odors.

1 I mean this is a classic public nuisance
2 situation. And we're merely asking this Board not to
3 increase the nuisance, but certainly to do something about
4 encapsulating this facility to make sure that the odors
5 and the flies and the dust do not come on to our facility.
6 Because if they continue to come on to our facility -- I
7 think Mr. Holst is correct. From everything I've read
8 about the potential for flashover, it is real, it is a
9 serious problem, and it is a problem that needs to be
10 addressed sooner rather than later.

11 If you have any questions on the legal side of
12 things, I'll be happy to address those.

13 CHAIRPERSON PAPARIAN: I've got a couple quick
14 ones.

15 Now, we have the local enforcement agency for San
16 Bernardino County. Has the DWP been contacting them,
17 complaining to them? What kind of response do you have --

18 MR. HOTCHKISS: We have been in contact with the
19 LEA since the very beginning of the problems arising,
20 which was early in January of this last year. And I've
21 looked at some of the LEA reports. And one of them, which
22 stuck way out in my mind, was a finding of no violation.
23 Then it says that the putrid or bad odors are going to be
24 corrected by the application of some kind of
25 odor-controlling device, without mentioning what it was.

1 So in the presence of an investigator you have
2 these offensive foul odors permeating the atmosphere.
3 They find no violation under the permit. They should
4 have. And they say that "We're putting this back on
5 Nursery Products to deal with the odor," but no violation.
6 Now, that has been a consistent pattern in this situation.
7 No agency called in to look at this problem has taken any
8 action against this facility. Why? I simply do not know.

9 I should also point out for the record, in going
10 through the new proposed permit, it states that the City
11 of Adelanto Fire Station has announced that it has met or
12 meets all necessary requirements. The City of Adelanto
13 does not have a fire station. There is a county fire
14 department there. And our interviews with the county fire
15 personnel, which is directly across the street from our
16 facility, goes as follows: There is no water -- there is
17 no water at this facility. There is one fire hydrant at
18 the end of a run on Pansy Road at the corner of a 40-acre
19 parcel. Okay? No water on the facility. No electricity
20 on the facility except the solar panel over the trailer
21 that works as the composting facility office. Okay?

22 So the fire personnel have told our people upon
23 interview that if a fire started there, there would be no
24 way to control the fire. They would suck that pipe dry
25 with one single pumper. To control a 40-acre potential

1 fire? It's impossible. If a fire starts there and
2 noncombustible vapors come over, carrying carbon and other
3 byproducts from the fire, and they blow right on to our
4 facility, you're going to be seeing huge flashovers to
5 ground.

6 It's an intolerable dangerous situation to
7 continue the operations and the status quo there.

8 Is there anything else?

9 CHAIRPERSON PAPARIAN: Any other questions?

10 Mr. Jones.

11 COMMITTEE MEMBER JONES: No, I'll save mine
12 for -- I do have questions for the LEA. I'll tell you,
13 I'm amazed.

14 CHAIRPERSON PAPARIAN: Let me just ask you one
15 other thing.

16 COMMITTEE MEMBER JONES: Not with the LEA.
17 Go ahead.

18 CHAIRPERSON PAPARIAN: You may not have gotten
19 this far. But we have some restrictions on our ability to
20 deal with permits once they've gotten this far. You're
21 suggesting that we turn down this permit.

22 MR. HOTCHKISS: I think that the permit should be
23 modified to require encapsulation and filtration at that
24 place. I'm not seeking to put them out of business. I
25 think they're entitled to run their operations, but not at

1 the expense of little children playing in the school yard
2 and not at the expense of everybody else who lives and
3 works in that community. I think it should be
4 encapsulated and they should filter out the foul air.

5 CHAIRPERSON PAPARIAN: Okay.

6 COMMITTEE MEMBER JONES: I do have a question
7 when you're done.

8 CHAIRPERSON PAPARIAN: Just a second.

9 Okay. Let me just ask something on a slightly
10 different topic.

11 Mr. Spring mentioned that there's been some work
12 with the applicant to see about getting them relocated.

13 MR. HOTCHKISS: That's correct. And I've been a
14 part of that.

15 CHAIRPERSON PAPARIAN: Yeah. So I would assume,
16 given some of the property holdings you guys have, you may
17 be looking at some of those too or -- can you -- are there
18 places that you have that you guys can offer as an
19 alternative site, or are you aware of alternative sites?

20 MR. HOTCHKISS: Well, the City of Los Angeles
21 certainly has property holdings, most of them in the
22 Inyo-Mono Basin area.

23 CHAIRPERSON PAPARIAN: All right.

24 MR. HOTCHKISS: Our property in the desert area
25 around Adelanto, I believe this is the only property that

1 we hold out there, plus the right-of-ways for the power
2 lines that come in and go out.

3 But if they want to relocate in the Owens Valley,
4 then we do have property there certainly.

5 CHAIRPERSON PAPARIAN: Do you feel like -- okay.
6 Regardless of whether it's your property or somebody
7 else's property, do you feel like there's some potential
8 there for their relocation, or it's just something you
9 guys would like to have happen?

10 MR. HOTCHKISS: I speak only on behalf of one of
11 the property owners and operators in this community. But
12 I also feel compelled, on behalf of those who are not here
13 with a mouthpiece to stand in front of you, to say that,
14 without a doubt, having reviewed all hundred and --
15 whatever it was -- twenty some reports that were sent out
16 from these various folks, that the vast majority of them
17 said, "Please get it out of our community." And that's
18 what we're saying, please get it out of our community.
19 And then, on the alternative, if they could encapsulate
20 this thing, cover the windrows and somehow control the
21 odor and flies, I don't think we'll have a problem being
22 neighbors with these people. But I just don't see it
23 happening. It hasn't happened in the last nine months.

24 CHAIRPERSON PAPARIAN: Okay. Thank you.

25 It's possible we might have some additional

1 questions after -- I think we're going to hear from the
2 LEA.

3 The LEA, are you here?

4 Yes.

5 I'm sorry, Mr. Jones. You have a question for
6 the LEA?

7 Do you want to respond first? And then I think
8 several of us might have some questions about what's going
9 on there. Or do you want us to just dive into questions?

10 MS. ADAMS: I would be happy to answer your
11 questions.

12 I'm Jackie Adams with the San Bernardino County
13 LEA.

14 CHAIRPERSON PAPARIAN: Okay. Mr. Jones.

15 BOARD MEMBER JONES: Ms. Adams, how often do you
16 inspect this facility or does your staff inspect it?

17 MS. ADAMS: We inspect the facility monthly.

18 COMMITTEE MEMBER JONES: Okay. And in the
19 last -- there was no violations through 2002 and no
20 violations through 2003, is that --

21 MS. ADAMS: That's correct.

22 COMMITTEE MEMBER JONES: Okay. Odor issues --
23 the new regs call for an odor minimization plan. And I'm
24 assuming that's one of the reasons for this permit
25 revision?

1 MS. ADAMS: In fact, Nursery Products submitted
2 an odor impact minimization plan in February before the
3 regulations were passed.

4 COMMITTEE MEMBER JONES: Oh, okay. Ahead of
5 time?

6 MS. ADAMS: Yes.

7 COMMITTEE MEMBER JONES: What is the fly issue
8 that these -- I mean is this -- flies would be an issue
9 you would write up a -- or do as an area of concern,
10 correct?

11 MS. ADAMS: Correct. In May there was an area of
12 concern on the fly issue. And the operator progressively
13 took action to mitigate the flies. He went out into the
14 community and went to the neighboring businesses and gave
15 them flytraps.

16 COMMITTEE MEMBER JONES: Oh, okay. And then what
17 did the -- and then the collection of the flytraps showed
18 what, an increase in flies or just the fact that they're
19 being collected and killed?

20 MS. ADAMS: I'm sorry, I don't understand --

21 COMMITTEE MEMBER JONES: Is there any follow-up
22 besides just giving the traps?

23 MS. ADAMS: There's other mitigation measures
24 going on for the flies. They have a company that's
25 spraying twice a week.

1 And we also had Jeff Watson, the staff member
2 from CIWMB, come out. And he gave some practical help to
3 the operator on how to -- when he receives bio-solids, how
4 to quickly cover it and get the composting windrow so that
5 it would heat up and kill the flies.

6 COMMITTEE MEMBER JONES: Okay. Is the process --
7 I don't know if I need to ask you this or the operator
8 this. But because there's been testimony that there's no
9 water on the site -- which I don't know if there is or
10 isn't. But if there isn't, the only way that composting
11 works is with the addition of moisture. So the moisture's
12 coming from bio-solids. That tells me that these are
13 static piles for a long period of time until they've
14 reached a point where they can be turned. Is that the
15 system or is there ongoing turning and water being
16 applied.

17 I see somebody shaking their head no. So --

18 MS. ADAMS: I think the operator can better
19 address this.

20 COMMITTEE MEMBER JONES: All right. So these
21 piles are static. They're sitting there. They're not
22 being turned, which normally generates dust. They're
23 sitting there, and they get a crust-over at some point
24 actually.

25 Okay. That's interesting.

1 All right. Thank you.

2 CHAIRPERSON PAPARIAN: Have you looked into the
3 DWP's specific concerns? Have you gone to their facility
4 to see if it appears that the suggestions that they made
5 here today are accurate, flies, dust on their equipment
6 and so forth?

7 MS. ADAMS: No, we haven't gone to their
8 facility. But we did have a meeting in May and we
9 discussed all of their concerns. They came to our office
10 and met with our LEA. And at that time I had an RCSI
11 that -- the report of composting information for the new
12 permit that we were reviewing at that time. And I gave
13 them a copy and I said, "We would appreciate your input,
14 if you have any idea what mitigation measures we could
15 put. We want to write the best permit that we can for
16 this facility." And we asked for their input.

17 CHAIRPERSON PAPARIAN: Did you get anything from
18 them?

19 MS. ADAMS: There was one comment about the
20 height of the pile of wood material -- wood waste. And
21 our regulations don't cover feed stock.

22 CHAIRPERSON PAPARIAN: Okay. And then, are you
23 getting many complaints generally about this facility?
24 Just are you getting phone-in complaints, written
25 complaints?

1 MS. ADAMS: Since they started operating in
2 October the LEA has received 13 complaints.

3 CHAIRPERSON PAPARIAN: Is that kind of normal for
4 an operation, high, low?

5 It's hard to tell?

6 MS. ADAMS: It's hard to tell.

7 CHAIRPERSON PAPARIAN: Okay.

8 MR. de BIE: Mr. Chair, if I may assist Jackie in
9 refreshing her memory.

10 One thing that the LEA shared with staff was that
11 they actually were able to facilitate an evaluation of the
12 operation with an entomologist to look at the fly
13 situation specifically. So they sought outside input on
14 how to deal with the fly issue. And there were some
15 changes to the operation resulting from that.

16 And maybe it would be helpful if Jackie could
17 look at her notes and indicate the source of those
18 complaints, those 13 complaints.

19 MS. ADAMS: Sure.

20 Out of the 13 complaints, there were 2 from a
21 neighboring company called K&S, there were 10 from the
22 Department of Water and Power. And then 1 initially when
23 they started operating was from a neighbor who we couldn't
24 verify actually existed.

25 CHAIRPERSON PAPARIAN: Okay. So the Department

1 of Water and Power has complained 10 times formally in
2 some way?

3 MS. ADAMS: Yes.

4 CHAIRPERSON PAPARIAN: Do you investigate each of
5 those complaints or --

6 MS. ADAMS: We don't necessarily go out
7 physically on every complaint because we're out there
8 every month. But we do -- I always call the operator to
9 find out, "What are you doing different? What are you
10 doing, you know, that may be different that could be
11 creating a nuisance?" And generally we work with the
12 operator. And he's been very responsive in visiting the
13 neighbors who are complaining to find out, you know, what
14 the impact is.

15 CHAIRPERSON PAPARIAN: Okay. Mrs. Peace, did you
16 have anything for the LEA?

17 COMMITTEE MEMBER PEACE: So you don't get ongoing
18 complaints from people around this facility all year long?

19 MS. ADAMS: No, we haven't.

20 COMMITTEE MEMBER PEACE: And has there been any
21 increase in development in that area at all that could be
22 the cause of the dust, or is all this dust coming from the
23 composting facility?

24 MS. ADAMS: It's the desert and it's dusty. I
25 don't attribute, you know --

1 COMMITTEE MEMBER PEACE: I know there's winds and
2 stuff that --

3 MS. ADAMS: Right. And they have high wind days
4 and that does generate dust.

5 COMMITTEE MEMBER PEACE: When it comes to the
6 flies and the odor, I notice they -- can you tell whether
7 that would be coming from the bio-solids or from the green
8 material? Would it be less if they were not taking the
9 bio-solids?

10 MS. ADAMS: No. The flies are coming in in the
11 green material.

12 COMMITTEE MEMBER PEACE: In the green material.

13 Okay. Thank you.

14 CHAIRPERSON PAPARIAN: Let me just follow-up on
15 one thing.

16 The dust -- I don't want to put words in your
17 mouth, but it sounded like you were saying that the added
18 dust -- that there may not be added dust in the community
19 from the facility. Did you mean to imply that?

20 MS. ADAMS: I don't know how you would measure
21 where the dust is coming from.

22 CHAIRPERSON PAPARIAN: Okay. So you're not --
23 you just don't know whether there is added dust to the
24 community from this facility or not?

25 MS. ADAMS: Correct.

1 CHAIRPERSON PAPARIAN: Okay. And I see the
2 fellows in the back.

3 Are you the operator?

4 Okay. Let us finish with the LEA. I think it
5 will just take a second. And then, yeah, we would like to
6 hear from you.

7 Did you have something else, Mr. Jones?

8 COMMITTEE MEMBER JONES: Just a couple quick
9 questions. Thanks, Mr. Chair.

10 You gave DP -- Power and Water a copy of the
11 permit that you were starting to construct?

12 MS. ADAMS: Yes.

13 COMMITTEE MEMBER JONES: Prior to the
14 construction of it?

15 MS. ADAMS: Yes.

16 COMMITTEE MEMBER JONES: Prior to writing it?

17 MS. ADAMS: Yes.

18 COMMITTEE MEMBER JONES: And got one comment on
19 the height of the pile?

20 MS. ADAMS: Right.

21 COMMITTEE MEMBER JONES: Okay. I think that's
22 important because that's clearly not the tenor of a lot of
23 the discussions I've had and the things of people not
24 knowing about any of this.

25 And the ten complaints from DP -- Power and Water

1 on the flies -- and I don't doubt that they're legit
2 complaints. But I noticed -- we got a copy from the
3 Mohave AQMD with complaints of odor and that. Now, all
4 those complaints are supposed to go to the LEA. But this
5 time I guess they chose to write the complaint or at least
6 to notice it.

7 Do you routinely talk with AQMD? Do they ever
8 call you with issues of -- odor issues or things like
9 that? Because it is serious. I mean we're not -- I don't
10 want my questioning to indicate for a second that I don't
11 think composting facilities should operate as a good
12 neighbor, because I think they should. And I think most
13 of them do. It's just sometimes, you know, we have to
14 look and -- I mean sometimes people have different reasons
15 for being opposed to things. I'm a little surprised that
16 the schools didn't know who to talk to about these issues
17 in a town that small, that they couldn't talk to the city
18 manager or the county LEA.

19 Had you ever been contacted by the schools on
20 issues there about this?

21 MS. ADAMS: No.

22 COMMITTEE MEMBER JONES: Okay.

23 All right. Thanks.

24 CHAIRPERSON PAPARIAN: Okay. Thank you.

25 And then -- yeah, why don't you come on up.

1 You'll need to identify yourself.

2 MR. MEBERG: Thanks. I'm Jeff Meberg. I'm the
3 managing partner of Nursery Products. I brought some of
4 the guys with me to help me with permitting; and Mike
5 Wagner, who did the environmental impact report for the
6 City of Adelanto.

7 I don't know where you guys would like to start.

8 CHAIRPERSON PAPARIAN: It seems like you jumped
9 up when I was raising a question about the dust concerns.

10 MR. MEBERG: Yeah, we've had Mohave District AQMD
11 come out to the site quite a few times. We've had no dust
12 violations or issues whatsoever. They're worried about PM
13 10, creating that -- there aren't dust roads. They're all
14 paved. Once you get inside the site, we've laid down
15 rock. So I don't know where the dust is coming from.
16 There's not dust in a compost operation.

17 So the whole dust issue I'm finding surprising.
18 But I'm not -- I don't want to go off on a rant, so I'm
19 going to let the people that did the permitting and the
20 EIR to address that, unless you have questions before I
21 give up the mic.

22 CHAIRPERSON PAPARIAN: I think Mr. Jones might.
23 Go ahead, Mr. Jones.

24 COMMITTEE MEMBER JONES: Thanks, Mr. Chair.

25 The question I was asking somebody, I think the

1 LEA, you've got static piles, meaning you don't have the
2 accessibility or you don't -- you'd have to dump in --
3 what are the average temperatures in that area?

4 MR. MEBERG: Ambient temperatures?

5 COMMITTEE MEMBER JONES: Yeah.

6 MR. MEBERG: The summer has been 102 degrees.

7 COMMITTEE MEMBER JONES: Okay. And the winter?

8 MR. MEBERG: And the winter, at night it will get
9 down to 30, 35.

10 COMMITTEE MEMBER JONES: Okay. So explain to us
11 quickly your process, as I -- well, let me do it a
12 different way.

13 I read your process to be green waste with the
14 addition of bio-solids or that type of waste, and then
15 some accelerant.

16 MR. MEBERG: Exactly. A catalyst. It just got
17 approved in July as a -- basically as a new technology,
18 EPA Region 9, for how to -- it's a combination of
19 windrowing and the static aerobic pile. So it sits for 30
20 days, just like you had commented on.

21 COMMITTEE MEMBER JONES: All right. So it sits
22 static for 30 days.

23 How is it -- when you receive it on site, is it
24 bulked up and you have to chip it and get it into a form
25 to put into your pile or --

1 MR. MEBERG: We're bringing in ground green
2 waste.

3 COMMITTEE MEMBER JONES: Off site -- from off
4 site?

5 MR. MEBERG: From off site.

6 COMMITTEE MEMBER JONES: So the material's
7 already been processed?

8 MR. MEBERG: Over half. Probably three quarters
9 of the green wastes and wood waste that come in have
10 already been ground.

11 COMMITTEE MEMBER JONES: Okay. So you're doing a
12 quarter of it?

13 MR. MEBERG: We do -- yeah, and it's all these
14 local neighbors that are -- that don't know who to
15 contact, they're our customers that are bringing in wood
16 every single day and we grind it, the furniture
17 manufacturers and various other manufactures.

18 COMMITTEE MEMBER JONES: Okay. So you're -- a
19 tub grinder?

20 MR. MEBERG: Exactly, we use a tub grinder.

21 COMMITTEE MEMBER JONES: So you're using a tub
22 grinder.

23 You're mixing that material with bio-solids?

24 MR. MEBERG: Um-hmm.

25 COMMITTEE MEMBER JONES: Putting it into a pile

1 that is 20 feet wide?

2 Fifteen?

3 MR. MEBERG: Sixteen.

4 COMMITTEE MEMBER JONES: Sixteen feet wide.

5 How tall?

6 MR. MEBERG: About eight feet.

7 BOARD MEMBER JONES: Eight feet tall.

8 It stays in the windrow for how long before it

9 is touched?

10 MR. MEBERG: Thirty days.

11 COMMITTEE MEMBER JONES: No aeration?

12 No aeration.

13 MR. MEBERG: Not when your temperature's of it --

14 it's got to be at 131 degrees Fahrenheit for over 15 days

15 straight.

16 COMMITTEE MEMBER JONES: All right. That's the

17 first part of the stage?

18 MR. MEBERG: Correct.

19 COMMITTEE MEMBER JONES: Those piles -- those

20 rows that are in the second stage, tell us what the second

21 stage looks like.

22 MR. MEBERG: Same thing except we go and we turn

23 it.

24 COMMITTEE MEMBER JONES: Turn them one time?

25 MR. MEBERG: One time.

1 COMMITTEE MEMBER JONES: One time. Okay.

2 MR. MEBERG: And they sit for 15 days.

3 COMMITTEE MEMBER JONES: And they sit for 15
4 days.

5 What's the dust like when you turn those?

6 MR. MEBERG: Dust?

7 COMMITTEE MEMBER JONES: Is there dust?

8 MR. MEBERG: Not a dust issue.

9 COMMITTEE MEMBER JONES: Okay. Is it a moist --
10 as you're turning from the inside out you should be taking
11 dry material, putting it in the middle and bringing out a
12 moist material to outside?

13 MR. MEBERG: Exactly.

14 COMMITTEE MEMBER JONES: Is that what's
15 happening?

16 MR. MEBERG: Exactly.

17 COMMITTEE MEMBER JONES: All right. If it's dry
18 all the way through, do you have a problem with your
19 system?

20 MR. MEBERG: The problem has been that it's been
21 too moist.

22 COMMITTEE MEMBER JONES: It's dry all the way
23 through?

24 MR. MEBERG: It hasn't been dry all the way
25 through.

1 COMMITTEE MEMBER JONES: Okay, okay. If you have
2 a problem, it's -- I gotcha.

3 MR. MEBERG: The problem has been in the past
4 that it's just been too moist. And then there's analysis
5 that we've taken on the finish class to show the moisture
6 content. It's still 25 to 35 percent.

7 COMMITTEE MEMBER JONES: Okay. So we've got
8 these turns, and then the final product gets loaded out.

9 Is it bagged or loaded -- bulk loaded?

10 MR. MEBERG: Bulk loaded.

11 COMMITTEE MEMBER JONES: Okay. I didn't mean to
12 stop you short.

13 You're 30 days, you're 15 days, you're another 15
14 days?

15 MR. MEBERG: Yeah. And then we just roll up at
16 the front end and just kind of --

17 BOARD MEMBER JONES: -- put it into a pile.

18 Okay. And dust at any of those stages?

19 MR. MEBERG: No dust.

20 COMMITTEE MEMBER JONES: All right. Finished
21 product?

22 Finished product went through a trauma screen and
23 shipped off.

24 COMMITTEE MEMBER JONES: All right. That may
25 generate a little dust.

1 MR. MEBERG: The trauma screen when we turn it is
2 in the middle of the property, which is 900 feet from the
3 property line.

4 COMMITTEE MEMBER JONES: Okay. Do you have any
5 indicators that you could put up there to see if that's
6 traveling, to look?

7 Are you putting water on it?

8 MR. MEBERG: On the trauma screen, yes.

9 COMMITTEE MEMBER JONES: Okay. So you're keeping
10 the dust down at the trauma screen? Because that could be
11 an area --

12 MR. MEBERG: Yeah.

13 COMMITTEE MEMBER JONES: -- that could create a
14 problem. And we've got to be good neighbors. I mean if
15 you're going to be there, you've got to be a good
16 neighbor.

17 MR. MEBERG: I want to be a good neighbor.

18 COMMITTEE MEMBER JONES: All right.

19 MR. MEBERG: We've spent -- since May, the
20 operations manager, has gone and visited all the neighbors
21 every two weeks.

22 Jackie had mentioned about flytraps. We got
23 flytraps out when the flies were an issue. We were taking
24 too much green waste. And the flies were coming in.
25 That's when we hired the Vector Control from San

1 Bernardino County. And we were trying to determine are
2 the flies -- are we growing them at the site or are we
3 importing them? We realized we were importing them. So
4 we cut back the amount of green waste.

5 But during that study we went and we offered free
6 flytraps to all the neighbors. And then we go and we talk
7 to them every two weeks, everybody but Department of Water
8 and Power because they have issues on us coming on their
9 property.

10 COMMITTEE MEMBER JONES: All right. What's your
11 fire protection plan?

12 MR. MEBERG: Fire protection plan is we have a --
13 we have a water truck on site and there's a fire hydrant
14 on site.

15 COMMITTEE MEMBER JONES: And do you have an
16 articulating loader on site? Can you cut into a pile?

17 MR. MEBERG: Yes, three of them.

18 COMMITTEE MEMBER JONES: So you can cut into a
19 pile if there's a fire?

20 MR. MEBERG: Um-hmm.

21 COMMITTEE MEMBER JONES: All right.

22 Thanks, Mr. Chair.

23 CHAIRPERSON PAPARIAN: I have the impression from
24 the DWP folks, if I were to go to their facility right
25 now, I'd be uncomfortable with the flies around me.

1 MR. MEBERG: I got that impression from them too.

2 CHAIRPERSON PAPARIAN: Is it your belief that
3 that's not accurate, that there aren't that --

4 MR. MEBERG: I've got six employees at our site
5 that don't have a problem. We've had the fire department
6 come out to the site, the LEA, county, AQMD, city
7 officials. Nobody's brought up the fly issue anymore. It
8 was a -- we did have a fly issue in the spring.

9 CHAIRPERSON PAPARIAN: Okay. But if today -- so
10 it's your assertion that if they're experiencing flies,
11 they're not really from your facility?

12 MR. MEBERG: That would be my assertion.

13 We also have DeVries pest control come out and
14 spray our site twice a week. But we -- the real issue is
15 we cut back greatly in the amount of green waste we're
16 taking in. And we've increased the amount of wood. We're
17 going to be one of the facilities taking this bark beetle,
18 the wood, which makes great compost. And there's no flies
19 from that.

20 CHAIRPERSON PAPARIAN: Okay. Mrs. Peace.

21 COMMITTEE MEMBER PEACE: You just said the flies
22 were a problem when you were taking too much green waste.
23 The flies won't be a problem when you increase your
24 business tenfold?

25 MR. MEBERG: We've already cut back the amount of

1 flies. We cut back the amount of curbside green waste
2 that we're bringing --

3 COMMITTEE MEMBER PEACE: So when you're
4 increasing your business here, you're not going to be
5 taking curbside green waste?

6 MR. MEBERG: I'm not going to increase the amount
7 of curbside green waste in proportion to the amount the
8 permit's going to grow, no. In other words, we were
9 taking in a hundred percent curbside green waste, which
10 brought in a lot of flies. We've cut it down to about 20
11 percent, which also it's turned out it makes a lot better
12 compost as well by cutting that --

13 COMMITTEE MEMBER PEACE: So you're going to keep
14 that same percentage.

15 MR. MEBERG: Yeah. Right now the compost is --
16 it's kind of the ideal. And there's a lot of wood.

17 COMMITTEE MEMBER PEACE: Can you describe some of
18 the conversations you've had between yourself and the DWP?
19 I mean have you actually tried to work together to resolve
20 some of these problems? Or do they just want to see you
21 gone?

22 MR. MEBERG: No, originally -- their original
23 complaints were warranted. We had issues. I apologized.
24 We met. I felt bad because I thought what Mr. Holst had
25 said was true. We changed, like I said, the green waste,

1 what we brought in. We started having a -- the pest
2 control company come in to spray for flies.

3 We met in the DWP offices in Los Angeles to give
4 them an update on what we were doing, everything I
5 basically explained to you. And we also met the end of
6 August at the local Adelanto facility. And I told them
7 what we were doing also, that we'd be willing to
8 potentially move down the road. This permit process had
9 already -- was already underway. So we didn't want to
10 confuse the two issues. But, yet, if it would work out,
11 that we would move, we would talk to them about it.

12 We've actually in the last month -- I don't think
13 anybody here from the Department of Water and Power knows
14 it, but we've been trying to set up meetings with the
15 Department of Water and Power down in corporate in Los
16 Angeles. We've been told, "Well, we'll get to you." And
17 I think what they're doing is their waiting to see what
18 happens today.

19 But, yeah, I'm trying very hard to work with
20 them. I'm trying to work out a way of being good
21 neighbors.

22 And we're -- the issue -- the whole issue of
23 composting is being good neighbors. And so that's why we
24 try to make a concerted effort to go visit all the
25 neighbors within Adelanto. I'd like to be good neighbors

1 with the Department of Water and Power. I don't think
2 anybody needs to wear bee suits. But I certainly don't
3 want them when they go to work to have a -- have it be
4 frustrating for them when they're working outside. So I'd
5 like to do whatever we can to be a good neighbor.

6 COMMITTEE MEMBER PEACE: So you have been looking
7 at other sites to move to?

8 MR. MEBERG: Yes, within the city.

9 COMMITTEE MEMBER PEACE: That will be further
10 away from the power lines?

11 MR. MEBERG: It'd be further away from
12 everything.

13 CHAIRPERSON PAPARIAN: Did you have other
14 representatives who wanted to --

15 MR. MEBERG: If you have questions concerning the
16 environmental impact report or odor minimization plan or
17 anything like that, the people that wrote them are here if
18 you have questions.

19 CHAIRPERSON PAPARIAN: Not specific, anything
20 else for them.

21 Thank you very much.

22 MR. MEBERG: Thanks. Appreciate it.

23 CHAIRPERSON PAPARIAN: Mr. Hotchkiss, I'll just
24 give you a quick chance if you wanted to respond to
25 anything that we've heard. We've hear from the LEA and

1 the operator. I'm not trying to be too formal. I'm
2 trying to be informal so we just get all the information
3 that we need.

4 Do you feel like anything was misstated?

5 MR. HOTCHKISS: No, there have been meetings
6 between the representatives, Mr. Meberg of Nursery
7 Products an the Department. The representation that was
8 made to us at our meeting was that they were either going
9 to significantly alter their operations or they were going
10 to move from the facility by September the first. And for
11 whatever reason, neither has happened.

12 The reports that I've received indicate that the
13 fly problem is just as difficult on warm days as it has
14 been in the past; that the obnoxious odors, as you can
15 all see from the reports of the public that have written
16 to you, are just as difficult today as when they were
17 first noticed. So whatever is going on in this operation,
18 whatever the special catalytic process is or however long
19 they leave the stuff or the combination of materials,
20 whatever it is, it is not producing the good neighbor that
21 we would all like to see in this situation.

22 And I frankly do not see how they can become a
23 good neighbor without encapsulating this facility and
24 filtering the byproducts, the odors that are being
25 developed here.

1 I understand that there are composting operations
2 that don't have this problem. This particular composting
3 operation has this problem. And why? I certainly don't
4 have the expertise to speak to. And they clearly don't
5 have a solution, because the problem persists today as it
6 has from the get-go.

7 But if you have any further questions, I'll be
8 happy to address them.

9 CHAIRPERSON PAPARIAN: Thank you very much.

10 MR. HOTCHKISS: Thank you.

11 CHAIRPERSON PAPARIAN: And then, just for our
12 staff, as I understand from the agenda item, we can take
13 action this month. But we can also -- if for whatever
14 reason we decide we want to hold it for a month, that does
15 not hurt the time on --

16 DEPUTY DIRECTOR LEVENSON: That's correct, yeah.
17 Given the date that we received the permit application, we
18 need to act by November 21st. And the November Board
19 meeting occurs before that date.

20 CHAIRPERSON PAPARIAN: Okay. Members, my
21 inclination would be to -- we are a little bit overdue for
22 our break. My inclination would be to let us break so we
23 can ponder what we've heard. And then come back and deal
24 with this right after the break. Unless there's an
25 anxiousness to do it before the break.

1 Okay. We'll take a 10-minute break and then come
2 back and finish up this item.

3 (Thereupon a recess was taken.)

4 CHAIRPERSON PAPARIAN: Okay. We're back to
5 order.

6 Any ex partes?

7 Mr. Jones.

8 COMMITTEE MEMBER JONES: Thanks, Mr. Chair.

9 Mr. Cupps and I had a conversation. And then my
10 friends from Avenal and I -- the City of Avenal.

11 CHAIRPERSON PAPARIAN: And I didn't have any.

12 Mrs. Peace.

13 COMMITTEE MEMBER PEACE: Yes, I spoke with Jeff
14 Meberg from Nursery Products and also Peter Winningham
15 representing Nursery Products.

16 CHAIRPERSON PAPARIAN: Okay. So we're still on
17 this same item.

18 I'm feeling like we're hearing two stories.

19 We're hearing that there's an ongoing and continuing
20 problem with flies and odors and dust, all of which would
21 be a violation of minimum standards for a facility like
22 this. On the other hand the folks we rely on for
23 enforcing our laws and regulations, the LEA, is telling us
24 they aren't noticing an ongoing problem in these areas.
25 And the operator is indicating that they don't believe

1 that there's an ongoing problem in this area.

2 I'm kind of -- and I know Mr. Washington I
3 believe, as I understand, is going to go visit the
4 facility later this week. Someone from my office is going
5 to go visit the facility later this week. But I'm also
6 wondering if we could ask the LEA to even go back out
7 there to take a look at DWP's operation.

8 I don't know. DWP reps, can you -- this is just
9 a nod, yes or no. There's no problem with the LEA coming
10 and taking a look at your facility just to verify some of
11 the complaints?

12 That would be fine. Okay.

13 And the LEA, that's an okay thing to do, to go
14 out there?

15 I mean I'd love to hear again from the LEA
16 whether -- after visiting particularly the DWP facility,
17 whether there's any verification of the claims that the
18 DWP is making or whether the LEA is seeing something
19 different.

20 Mrs. Peace.

21 COMMITTEE MEMBER PEACE: I'd like to ask Mark de
22 Bie, what information have you requested from the operator
23 and the LEA and the DWP, and have you gotten it? Have you
24 gotten all the information requested?

25 MR. de BIE: Mark de Bie with Permitting and

1 Inspection.

2 When we first started getting correspondence cc'd
3 to us and direct mail from Water and Power, we looked at
4 it. And I asked my staff, Steve Hooper, who does a lot of
5 the environmental review for facilities in this
6 jurisdiction -- and a lot of the allegations had to do
7 with environmental review issues -- asked him to contact
8 the staff at Water and Power, and asked for a little bit
9 more detailed in terms of the allegations that were
10 contained in their letters, you know, specific dates on
11 when certain occurrences that they were alleging occurred,
12 any evidence that they had that there was a direct link
13 between the facility and what they were observing at their
14 site, you know, those sorts of things. And that hasn't
15 been forthcoming at least in correspondence or, according
16 to Steve, follow-up phone calls.

17 So we did make an effort to at least try to get a
18 little bit more detail about the specific kinds of impacts
19 that were being alleged to the site, and that hasn't been
20 forthcoming.

21 The LEA has provided us with all the information
22 that we've requested thus far and -- as well as the
23 operator. When we were reviewing the permit package, and
24 one of the sort of main observations we were making is the
25 LEA was adding in a number of conditions but the operating

1 document didn't reflect changes in the description of the
2 operation, and so the operator was very quick in turning
3 around, you know, descriptive language in the report of
4 compost site information indicating how they would comply
5 with those various conditions in the permit. So they've
6 been pretty responsive in that regard.

7 So staff, you know, has received all the
8 correspondence, the 120 some plus faxes, as well as
9 additional correspondence from Water and Power. And it
10 was just late last week. So we really haven't had time
11 to, you know, look at it and see if there's anything new
12 here, any additional information that would help us in our
13 assessment. We haven't really had enough time to do that
14 as yet.

15 COMMITTEE MEMBER PEACE: Thank you.

16 CHAIRPERSON PAPARIAN: And you're still reviewing
17 the CEQA and one other item, right?

18 MR. de BIE: Yeah. I think we've now completed
19 the review of the report of compost site information. So
20 that's pretty much done, unless the permit changes again,
21 and we may have to see if there's issues consistency. But
22 we don't anticipate that.

23 And then we're looking at the CEQA documentation
24 one more time, mostly because of the allegations that have
25 been provided late last week in terms of information

1 discrepancies in the project description. So we're
2 looking back at that one more time to verify our facts.
3 It's been several months since we looked at that document,
4 and so we want to refresh our memories on it.

5 CHAIRPERSON PAPARIAN: Mr. Jones, did you have
6 something?

7 COMMITTEE MEMBER JONES: Just that -- I think it
8 was important to me to see how the facility was operated,
9 what system they used, the system is going to minimize the
10 dust. It was important to me that the LEA in fact had
11 chased down and never showed a violation. I mean this
12 is -- I trust the San Bernardino County LEA. I've worked
13 with them in cleaning up some messes.

14 And, you know, I'm prepared to move this
15 resolution. And then let the Board decide what they want
16 to do at the Board meeting.

17 CHAIRPERSON PAPARIAN: Yeah, I'm feeling like I'd
18 like to get some of these other questions answered and
19 then hear back both from the LEA and from my staff and
20 the -- Mr. Washington I know is going to visit facility
21 too.

22 COMMITTEE MEMBER JONES: So am I.

23 COMMITTEE MEMBER PEACE: Yeah, I'd kind of like
24 to see it moved to the Board meeting with no
25 recommendation until we hear back from our staff. Give it

1 a little more time.

2 CHAIRPERSON PAPARIAN: Okay. Push it to this
3 month's Board meeting?

4 Okay. It sounds like, Mr. Jones, if you made a
5 motion, you probably wouldn't get a second. So probably
6 the best thing is just to push it to the Board meeting,
7 hear back at that point from the various parties.

8 And I just would mention a couple of things for
9 the -- you know, for the applicant and for DWP, you know,
10 if there's any way you guys can come to any closer
11 accommodations, that's always a good thing.

12 For the DWP, it's pretty rare that this Board has
13 turned down a permit. In fact, I'm not sure if this Board
14 has ever really turned down a permit. So it would be, you
15 know, quite an event if we were to do so.

16 On the other hand, I think that, you know, some
17 of us are concerned about what we're hearing about odors
18 and flies and dust. And if there's anything that can be
19 done in working with the LEA and working with the
20 applicant to address some of these concerns, you know,
21 that would be probably a good thing for all parties
22 concerned.

23 So at this point we'll move this to the Board
24 meeting without a recommendation. And we'll expect to
25 hear back from the LEA either directly at the Board

1 meeting or through our staff, whatever's most appropriate,
2 and we'll take it from there.

3 BOARD MEMBER JONES: Mr. Papanian?

4 If for any reason we feel that we can't take an
5 action at that Board meeting, it could be pushed to the
6 November meeting without waiving time. I understand that
7 would be within the 60-day time period.

8 Mr. Jones.

9 BOARD MEMBER JONES: I just want to -- you know,
10 I'm going to go along with this to put it to the Board
11 meeting. I don't really care if I make a motion and
12 nobody seconds it.

13 But I want to make one thing real clear. The
14 attorney for L.A. Power and Water said that the only
15 mitigation he could see is to fully enclose this facility.
16 That's not a reasonable request. And if that's the
17 starting line for what you're hoping is going to happen, I
18 think that -- I think it's a waste of time. And I want to
19 say that loud and clear, because that's unreasonable to
20 expect that these facilities would be fully enclosed.

21 And it was also a requirement that the South
22 Coast Air District try to impose throughout all of it's
23 area that their board didn't concur in, because they knew
24 that composting facilities needed to operate.

25 Now, they need to operate correctly, they need to

1 operate to state minimum standards, they need to try to
2 minimize odors and vectors. There's no evidence in the
3 document that we got that says that that facility isn't
4 doing all of those things.

5 So when the attorney says the only way that
6 they're going to see this thing through or go along with
7 it is to fully enclose it, you're asking people to
8 negotiate against something that's nonnegotiable. And I
9 just wanted to make sure that our expectations wouldn't be
10 too high, because they sure wouldn't in my book. And I've
11 negotiated lots and lots of contracts. And that would be
12 a no-starter for me.

13 So just since I can't put a, you know, resolution
14 on the record, I'll put that on the record.

15 CHAIRPERSON PAPARIAN: You can go ahead and make
16 a motion if you like. But just to be clear, that wasn't
17 the position that I was coming from. I was just
18 suggesting that the parties come together.

19 And, again, the -- actually DWP, as I was trying
20 to point out, is operating in some ways from a position of
21 weakness given the history of this Board on permits. But
22 at the same time, flies, odors, and dust are state minimum
23 standards and state minimum standards are something that I
24 know all of us take very seriously. If there was an issue
25 there, I think that we'd all feel that that would need to

1 be addressed.

2 So, again, hopefully, you know, we can get more
3 information over the next week. And if there's any
4 possibility of the parties working together and trying to
5 work something out, that's always a beneficial thing. I
6 think that's something we all try to strive for.

7 So I think with that, we can move on to the next
8 item.

9 DEPUTY DIRECTOR LEVENSON: Okay. Mr. Chair,
10 before we move on, two points: One, is would you like us
11 to have staff join the LEA in going out to visit that site
12 prior to the Board meeting? We'd try and --

13 CHAIRPERSON PAPARIAN: I mean if they're going to
14 go to the DWP site and see what's going on there and if
15 they haven't done that yet and if it's convenient.

16 This will be a southern California office staff?

17 DEPUTY DIRECTOR LEVENSON: Yeah, presumably.

18 CHAIRPERSON PAPARIAN: Yeah. That would be a
19 good thing, I would think.

20 DEPUTY DIRECTOR LEVENSON: Okay. And then also
21 we may revise the agenda item prior to the Board meeting
22 just based on any of the new information that we get and
23 any analysis we can add in. So we'll notify you and the
24 public as soon as that revision is -- if it is posted and
25 when.

1 COMMITTEE MEMBER JONES: Can I ask a follow-up
2 question?

3 CHAIRPERSON PAPARIAN: Mr. Jones.

4 COMMITTEE MEMBER JONES: Thanks, Mr. Chair.

5 Just a follow-up question. In reading the item,
6 your staff went out and did a pre-permit inspection on --

7 MR. de BIE: It's on page 7-3. September 9th.

8 COMMITTEE MEMBER JONES: So on September 9th your
9 staff, staff of the Waste Board, went out and found no
10 violations?

11 MR. de BIE: That's correct.

12 COMMITTEE MEMBER JONES: And the LEA has found no
13 violations?

14 MR. de BIE: That's correct.

15 COMMITTEE MEMBER JONES: Okay. I just wanted to
16 make sure, because, you know, I agree with Mr. Paparian.
17 There have been a lot of permits that never made it to
18 this body because they weren't in a position to be
19 approved. There's been hundreds of them. They usually
20 get here once the work has been done. And in some -- I
21 can tell you, some permits have taken years and years and
22 years to even get to this body. So that kind of makes it
23 a little tough, because they've worked an awful lot of
24 issues prior to it getting to this body.

25 All right. But our staff has gone out there and

1 concurred that there were no violations.

2 So thanks.

3 DEPUTY DIRECTOR LEVENSON: Okay. Moving on to
4 Item E, another permit San Bernardino. Consideration of a
5 Revised Full Solid Waste Facilities Permit (Transfer
6 Processing Facility) for the Sheep Creek Transfer Station,
7 San Bernardino County.

8 And Dianne will again be presenting this item.

9 MS. OHIOSUMUA: A revised proposed permit was
10 received on October 2nd, 2003. The Committee should have
11 before them a revised proposed permit. The website needs
12 to be updated. But copies of this document are on the
13 back table for interested parties.

14 The Sheeps Creek Transfer Station is located in
15 Freeland. It's owned and operated by the County of San
16 Bernardino. The facility is adjacent to the closing
17 Freeland landfill, which is also owned by the County of
18 San Bernardino.

19 The proposed permit will allow an increase in
20 traffic volume from 460 vehicles to 469 vehicles. It will
21 also extend the waste removal frequency from 48 hours to
22 72 hours.

23 The initial submittal was made in a timely manner
24 and the package was complete. The changes to the revised
25 proposed permit was minor and made at the request of Board

1 staff.

2 The LEA has certified that the application
3 package is complete and correct and that the report of
4 facility information meets the requirements of the
5 California Code of Regulations. The LEA has also
6 determined that the California Environmental Quality Act
7 has been complied with.

8 Board staff has determined that all the
9 requirements have been met.

10 Staff recommends the Board adopt Solid Waste
11 Facilities Permit Decision Number 2003-470, concurrence
12 with the issuance of a Solid Waste Facilities Permit No.
13 36-AA-0382.

14 Representatives from the LEA and the operator are
15 here to answer your questions.

16 CHAIRPERSON PAPARIAN: Any questions, members.

17 Mr. Jones.

18 COMMITTEE MEMBER JONES: I'll move adoption of
19 2003-470, Consideration of a Revised Full Solid Waste
20 Facilities Permit for the Sheep Creek Transfer Station in
21 Bernardino County.

22 COMMITTEE MEMBER PEACE: Second.

23 CHAIRPERSON PAPARIAN: Motion and a second.
24 Secretary, call the roll.

25 SECRETARY KUMPLAINIEN: Jones?

1 COMMITTEE MEMBER JONES: Aye.

2 SECRETARY KUMPLAINIEN: Peace?

3 COMMITTEE MEMBER PEACE: Aye.

4 SECRETARY KUMPLAINIEN: Papanian?

5 CHAIRPERSON PAPANIAN: Aye.

6 And this will be a candidate for consent.

7 Next item.

8 DEPUTY DIRECTOR LEVENSON: Item F, consideration
9 of a new Full Solid Waste facilities Permit (Transfer
10 Processing Station) for the Edom Hill Transfer Station in
11 Riverside County.

12 Willy Jenkins will be presenting this item.

13 MR. JENKINS: Good afternoon, Mr. Chair, members
14 of the Committee.

15 Agenda Item 9 is for consideration of a new Full
16 Solid Waste Facilities Permit for Edom Hill Transfer
17 Station.

18 The proposed facility will be located on 8.4
19 acres within the Edom Hill Landfill boundary, which is
20 located -- or which is owned by Riverside County Waste
21 Management Department. The operator will be Waste
22 Management of the Desert.

23 When Agenda Item 9 was prepared for the proposed
24 transfer station, Board staff had not get completed the
25 analysis for the proposed project and so stated in the

1 item.

2 As of late Friday, October 3rd, of last week,
3 staff received additional clarifying information regarding
4 the proposed project.

5 In conclusion, because staff has not been able to
6 complete their review and staff has no recommendation for
7 the Board on Board Resolution Number 2003-471 and Solid
8 Waste Facilities Permit No. 33-AA-0296, staff, the LEA,
9 and the operator will continue to work on resolving any
10 issues.

11 This concludes staff's presentation. And I can
12 answer any questions.

13 Also here today for item are Lori Holk with the
14 LEA and Paul Willman representing Waste Management of the
15 Desert.

16 CHAIRPERSON PAPARIAN: Do you have any sense --
17 the items you need to complete, are you confident you'll
18 be able to complete those between now and the Board
19 meeting or --

20 MR. JENKINS: We're going to be looking at the
21 information the LEA sent and discuss them again later --
22 or this week on Thursday, and we'll see from there.

23 CHAIRPERSON PAPARIAN: Okay. So you don't have a
24 recommendation for us on this item yet?

25 MR. de BIE: Yes -- Mark de Bie, Permitting and

1 Inspection -- that's correct. We don't have a
2 recommendation for you today. And we did get some -- a
3 late submittal per our requests on Friday, and we haven't
4 had a chance to look at it.

5 Willy has indicated that the LEA and the contract
6 operator has set aside time during this week to talk with
7 us about our questions. And so we're optimistic that
8 we'll be -- we'll have a recommendation at the Board
9 meeting next week.

10 The issues at hand deal with site operations and
11 the hours at which they take place. There was
12 inconsistent references in the record in terms of when
13 certain activities were taking place, and so we sought
14 clarification on that. As well as one or two permit
15 conditions that are a bit inconsistent with typical
16 permits, specifically condition 17E, we're trying to
17 figure out how we need to read that one. One could read
18 that as that this solid waste facility permit actually
19 authorizes the site to accept hazardous waste. And that's
20 not the role of a solid waste facility permit, to allow a
21 facility to accept hazardous waste. So we're seeking
22 clarification on how that condition should be read. I
23 mean it could be read just as information indicating that
24 the facility, in addition to the nonhazardous solid waste,
25 is also, you know, taking in hazardous wastes, CRT's and

1 other materials. Typically we don't see it written this
2 way in a permit, so we're looking for clarification on
3 that.

4 CHAIRPERSON PAPARIAN: Okay. Any questions, Mrs.
5 Peace, Mr. Jones?

6 COMMITTEE MEMBER JONES: Yeah, I do.

7 Was the CEQA document and everything okay?
8 That's not at issue here?

9 MR. de BIE: That was one of the documents that
10 had inconsistent references. So you had the CEQA document
11 you had a lease agreement, you had the record in front of
12 the Board of Supervisors, you have the permit, you have
13 the JT -- or the transfer processing report, all sort of
14 characterize the activities and the hours of which they
15 take place differently.

16 We also received correspondence from the county
17 as the operator, which further clarify things differently.
18 And so it was a mix match of information, and we're trying
19 to sort it out.

20 COMMITTEE MEMBER JONES: Okay. I'm getting a --
21 Okay. The CEQA document is a limiting document. Did they
22 exceed the limits in the CEQA document in stuff they've
23 brought forward? Exceeded.

24 MR. de BIE: Potentially, yes. And the CEQA
25 record isn't that clean. They did do a document and then

1 at the tail-end of the process they did an exemption for
2 expanding the hours of operation, as well as adding a
3 third landfill in which they would be servicing with the
4 transfer station. And staff was only made aware of that
5 late in the process.

6 So it's not as straightforward as a document that
7 has a very concise description. It's a bit involved. In
8 terms of the CEQA documents, the exemption references
9 lease agreements. It takes some sleuthing in order to
10 sort it out.

11 And what we're -- what staff is trying to get at
12 is just clarity so that there aren't issues later down the
13 road in terms of how things are to be interpreted. We
14 want to make sure everyone understands how this site is
15 going to be operating so that, you know, if an LEA or
16 Board staff person goes out to the site and sees something
17 happening, that it matches their understanding and won't
18 be a problem because, you know, we sorted it out early.

19 COMMITTEE MEMBER JONES: Okay. I mean unless the
20 LEAs got something to say -- see, I feel bad about sitting
21 at this Committee -- and I've heard it over and over and
22 over and over and over again for the seven years that I've
23 been here -- almost seven years, where the LEA thinks
24 they've got a document that absolutely represents what the
25 facility's going to do. And then because it doesn't

1 exactly match something -- and I don't mean going over. I
2 mean if the CEQA document is bigger than the permit, it
3 shouldn't be an issue in my mind. But I'm not comfortable
4 with the description of what the problem was. The fact
5 that it's complicated, you know, I'll just, you know, pray
6 to God that I can figure it out as you explained it to me.
7 But it just -- you know, I'm hoping that we're not -- I
8 guess what I always worry about is us sending a message to
9 LEAs time after time after time that we do not think
10 they're capable of doing their jobs. And that bothers me.
11 It bothers me when we get to a committee meeting. And --
12 because the inference is that the LEA didn't do their job.

13 So you want us to wait a week so that you guys
14 can figure it out, maybe that's okay, because I don't
15 think there's another choice. But it sure doesn't do
16 anything for Partnership 2000 or believing an LEA that's
17 out in the field everyday. You know, and if it's all
18 over -- and it may not be, Mark. It may be something
19 bigger than that. But, you know, I mean the description
20 on E kind of tells me hazardous or other waste, because
21 it's going to be called universal waste at some point.
22 Things like CRT's, E-waste ABOP-type waste, that's
23 pretty -- that tells me a category of waste that seems
24 pretty normal in transfer stations. Usually they put down
25 exclusions and they tell you you can take special waste.

1 So, you know, it's six to one, a half a dozen of
2 the other. I mean how many firms did we see that just
3 said they can take special waste, you know. And special
4 waste would be this -- all of these wastes. With the term
5 "special waste," it would include them all. What we're
6 saying, it's not consistent because it could be something
7 else.

8 That just -- it boggles my mind. It just
9 confuses me.

10 MR. de BIE: It's not that -- it's not quite
11 that. And I'm trying to balance giving you all the detail
12 and trying to just give you a summary of the issue. But
13 typically in permits where you have a facility that has a
14 household hazardous waste collection activity, it's
15 described that way in the permit. And this one kind of
16 blurred the two into saying, "This is the permit that
17 authorizes this site to take hazardous wastes," and then
18 it gives examples of what those hazardous wastes are.

19 And so we're just trying to draw a distinction
20 that it's not the solid waste facility that is the
21 authorizing document for a facility to accept hazardous
22 waste. And we're just reading that condition as
23 potentially saying that.

24 So certainly, you know, the permit could contain
25 a reference to the types of waste that the facility

1 handles and say that. But this one seems to be saying
2 that this is the permit that authorizes the site to take
3 hazardous wastes. So it's an inconsistent --

4 COMMITTEE MEMBER JONES: They'd still need the
5 DTSC waiver to even accept any of it.

6 MR. de BIE: They would. Certainly.

7 COMMITTEE MEMBER JONES: Okay. So I guess we're
8 not going to hear this till the Board meeting.

9 CHAIRPERSON PAPARIAN: We do have Mr. Willman
10 from the operator and Ms. Holk from the LEA. I'm
11 wondering if either of you want to --

12 MS. HOLK: Just here to answer any questions.

13 CHAIRPERSON PAPARIAN: Okay. In reading this and
14 in hearing the staff presentation, I haven't seen anything
15 that seems like a huge issue to hold up this permit next
16 week. But on the other hand it seems like there are some
17 questions that you still need to be answered. It's
18 possible that answers could come back in some unusual
19 direction, but more than likely not.

20 My suggestion would be to push it to the full
21 Board meeting and have an abbreviated presentation at that
22 point, unless there are some issues that are identified by
23 the staff in their review of all ease documents in the
24 next few days that would warrant some more detailed
25 discussion.

1 DEPUTY DIRECTOR LEVENSON: As Mark indicated, we
2 are meeting with the LEA on Thursday and I think -- felt
3 that we could work these issues out. So --

4 CHAIRPERSON PAPARIAN: And this is one, as I look
5 at the timing, that we do need to act on this month.

6 DEPUTY DIRECTOR LEVENSON: Correct.

7 CHAIRPERSON PAPARIAN: We can't really put this
8 one off till November.

9 So I haven't heard anything from the Committee to
10 indicate any huge questions or discomfort with this
11 proposal. But on the other hand I think we do want to
12 make sure that all the issues are looked at properly
13 before we actually vote on it.

14 MR. de BIE: And it would be staff's intent that
15 if we were still discussing things, that we would
16 certainly bring the detail of those discussions to the
17 attention of the full Board so that they could make their
18 own assessment of the situation and direct staff
19 accordingly.

20 CHAIRPERSON PAPARIAN: Okay. Anything else on
21 this item?

22 COMMITTEE MEMBER JONES: I have one question.

23 CHAIRPERSON PAPARIAN: Mr. Jones.

24 COMMITTEE MEMBER JONES: In the permit work, in
25 the permit toolbox that is available to all operators, all

1 LEAs, Johnny and Billy down the street -- all they need's
2 a computer -- does it explain how you want these
3 conditions written?

4 MR. de BIE: It provides examples of possible LEA
5 conditions that the LEA might want to consider inserting
6 in the permit. And we do not have an example of this
7 specific -- I don't believe we have an example of this
8 specific issue about characterizing, you know, hazardous
9 wastes and acceptance, that sort of thing. And so --

10 COMMITTEE MEMBER JONES: This might be one that
11 needs it. I mean if it's going to create -- I mean I
12 didn't read that as being an issue. But you did and your
13 staff did, so it's an issue. But, you know, you ought to
14 give -- you ought to tell the world out there how you want
15 it written --

16 MR. de BIE: Certainly.

17 COMMITTEE MEMBER JONES: -- so we don't have to
18 waste our time on stuff like this.

19 MR. de BIE: I totally agree. And I think, you
20 know, given some references in this condition on CRT's and
21 E-waste, some clarity on how to characterize those kinds
22 of activities at the sites would be of help. So we'll be
23 looking into that certainly.

24 CHAIRPERSON PAPARIAN: Okay. Ready for the next
25 item?

1 DEPUTY DIRECTOR LEVENSON: Item G.

2 CHAIRPERSON PAPARIAN: Yeah, go ahead.

3 DEPUTY DIRECTOR LEVENSON: Sure.

4 Item G is consideration of a Revised Full Solid
5 Waste Facilities Permit (Disposal Facility) for the Bass
6 Hill Landfill, Lassen County.

7 John Whitehill will be making the presentation.

8 MR. WHITEHILL: Good afternoon, Board members.

9 The Bass Hill Landfill is located about eight
10 miles south of Susanville near Highway 395. All the
11 adjacent land use around this facility is not private
12 land, but it's publicly-owned land, including the Bass
13 Hill Wildlife Area, which is owned by the California
14 Department of Fish and Game.

15 The facility is owned by Lassen County. But in
16 1998 the Lassen Regional Solid Waste Management Authority,
17 which represents Lassen County and the City of Susanville,
18 they took over operations at the site.

19 Revised permit addresses the following changes,
20 some of which I'll discuss in more detail in just a
21 minute:

22 First there's a change and a clarification in the
23 permitted tonnage at this site. There's an increase in
24 the permitted hours and days of operation. And there's --
25 reflects the implementation of a site-specific litter

1 control and mitigation measures.

2 There's an update in the estimated closure date,
3 that's changing from 1999 to 2028, based on new data.

4 And for the first time there's a specific
5 subtitle D footprint that's specified in the permit at 32
6 acres. And also the height of the landfill is specified
7 for the first time.

8 First of all the tonnage. The 1989 permit
9 specifies an average of 28 tons per day and a peak of 30
10 tons per day. However, the landfill is currently
11 accepting an average of around 50 or 60 tons per day based
12 on the skills that were recently installed.

13 They occasionally have one-day peaks between 120
14 and 150 tons per day. However, rather than specifying a
15 permitted peak tonnage in this permit, the LEA instead is
16 limiting the landfill only to that tonnage which is
17 generated in Lassen County.

18 That's because Public Resources Code, Section
19 44014 states that the LEAs permit shall contain all terms
20 and conditions which the enforcement agency determines to
21 be appropriate for the operation of a solid waste
22 facility.

23 As Mark mentioned a little bit ago, the P&I
24 branch provides an unofficial kind of template to help the
25 LEAs organize the terms and conditions, findings, limits,

1 monitoring requirements in each permit. And our template
2 that we provide also suggests some design and operating
3 parameters and also provides some sample language for the
4 permits that might come in handy.

5 However, in this case the LEA determined that a
6 specific peak daily tonnage is not appropriate or
7 applicable to this site. And that's for the following
8 reasons:

9 First, the landfill, the outlying transfer
10 stations and the other two active landfills are only
11 allowed to accept waste generated in Lassen County, which
12 is a total of about 70 tons per day, well within the
13 capabilities of the Bass Hill Landfill.

14 The tonnage of the landfill greatly varies from
15 day to day and from season to season. Any limit on peak
16 tonnage would have to be many times higher than their
17 actual average tonnage to accommodate occasional peak
18 loadings. And those are usually large deliveries of heavy
19 weights such as concrete C&D or metals.

20 Also, there's not a feasible disposal alternative
21 if the landfill were to be closed for exceeding its
22 permitted peak tonnage. For that reason the LEA
23 determined that just limit them -- to make sure they only
24 take waste within Lassen County and that would cover them.

25 The LEA, by the way, acted as lead agency for

1 CEQA in this case and they addressed this condition
2 specifically in their CEQA document.

3 Also, the LEA issued a notice and order when they
4 realized that the landfill was operating over tonnage.

5 As far as the hours and days go, the LEAs permit
6 will limit the landfill to daylight operating hours. If
7 the hours change, they'll be able to update it with an
8 hour-defined limit. And this permits conditions and
9 addresses litter control measures. When they -- when the
10 LEA did their CEQA document, the Department of Fish and
11 Game, that's the adjacent landowner, they commented that
12 they thought that there should be additional mitigation
13 measures. And so the LEA directed the operator to provide
14 additional litter mitigation measures which would be
15 implemented.

16 So in conclusion, Board staff have determined
17 that all the requirements for the proposed permit have
18 been fulfilled, and staff recommend that the Board adopt
19 Board Resolution No. 2003-472, concurring with the
20 issuance of Solid Waste Facilities Permit No. 18-AA-0009.

21 Ernie Genter representing the LEA is here to
22 answer any questions, as well as Tom Valentino
23 representing the operator.

24 CHAIRPERSON PAPARIAN: Questions?

25 Mrs. Peace.

1 COMMITTEE MEMBER PEACE: Yes. Where they're not
2 required to have a tonnage limit or a traffic limit, is
3 this normal for other rural landfills?

4 MR. WHITEHILL: It's rare. There's -- I can't
5 name all the examples. I know that the other permits that
6 this LEA has issued for their very small rural landfills
7 have been similar. Westwood Landfill, which got their
8 permit earlier this year, they're also in Lassen County.
9 Because they're limited to only waste within Lassen
10 County, there was no tonnage in that one as well.

11 COMMITTEE MEMBER PEACE: Well, do think this sets
12 kind of a bad precedent, we don't make them have a ton
13 limit or a traffic limit, that it sets a precedent that
14 maybe we don't want to get into?

15 MR. WHITEHILL: I don't know if this particular
16 case sets a precedent. This is a very site-specific
17 conditions and findings that the LEA justified, as we
18 wouldn't, you know, go along with this unless the LEA had
19 made specific -- site-specific findings to justify this.

20 MR. de BIE: Member Peace, staff views that there
21 are limits in this permit. You know, there's descriptive
22 information in here that we're reading as a limit saying
23 that, you know, the limit on tonnage is the waste
24 generated in the county and they have no waste imported
25 from any other county. And it's a very small county in

1 terms of total volume of waste.

2 So you look at the worst case scenario, if all
3 the wastes in the county went to this landfill, whether or
4 not they could handle it. And we are assured by reviewing
5 the documents that they can handle all of that waste.

6 And then the waste would be brought into the
7 site, either through self-haul or commercial. And so if
8 you factor in the ratios of self-haul commercial, we're
9 assured in reviewing the document that the site could
10 handle the number of vehicles anticipated to take all that
11 waste in there.

12 The LEA did do a CEQA document that utilized
13 those kind of calculations in assessing the potential
14 environmental impacts and wrote the permit consistent with
15 that. So they're not hard numbers, but there are limits
16 in the permit.

17 COMMITTEE MEMBER PEACE: So if there was a boon
18 growth out there, how would we know if it still fell under
19 the CEQA if we don't have any tonnage or traffic numbers?

20 MR. de BIE: You're quite perceptive. Yes, that
21 was an issue that we discussed with LEA, about that, and,
22 you know, if there was -- you know, if they changed the
23 county ordinance or whatever and started allowing waste
24 coming in from other counties or from the State of Nevada,
25 you know, how would that be affected?

1 And as well as if there was a growth in amount of
2 waste generated, there are still some descriptive
3 information in the permit that indicates typically how
4 much waste is generated and from where. And so at that
5 time if we saw those values being surpassed, we would ask
6 the LEA to address that permit in terms of a permit review
7 to see if it was still adequate.

8 COMMITTEE MEMBER PEACE: So you don't think it
9 would just be better at this time to make them have a
10 tonnage limit or a traffic limit, just put it in there?

11 MR. de BIE: That's staff's preference, is to
12 have a hard number so that, you know, there is clarity in
13 terms of how to measure this site and relative to the CEQA
14 review. But it is the LEA that writes the permits.

15 COMMITTEE MEMBER PEACE: It disables our ability
16 to do an analysis when a revised permit comes before the
17 Board or when we have to deal with complaints. I mean
18 don't they still have to weigh the incoming waste anyway
19 for the Disposal Reporting System? So I don't know why
20 it's such a big deal to track the tons.

21 MR. WHITEHILL: Oh, they do track the tons. They
22 keep records of the number of tons that come in of course
23 for tracking diversion, yes.

24 COMMITTEE MEMBER PEACE: Then why would it be
25 such a problem then to just put a permitted tonnage limit?

1 MR. de BIE: Yeah, I think we should refer that
2 to the LEA and how they approach writing this permit. I
3 don't want to speak too much for him.

4 MR. GENTER: My name's Ernie Genter, LEA for
5 Lassen County.

6 What's the question again?

7 COMMITTEE MEMBER PEACE: Just wondered why you
8 didn't put a permitted tonnage limit or a traffic limit in
9 the permit.

10 MR. GENTER: First off, we're not mandated to or
11 required to. But I did address the issue. And as was
12 outlined in a fair amount of detail in the CEQA document,
13 it just did not make sense for this site. It fluctuates
14 too much. There's a disposal tonnage. There's a
15 through-the-gate tonnage, which is point variable and
16 quite different. And the site can handle anything that
17 the county considers. And it is by ordinance the no
18 out-of-county waste is accepted at the facility. Tonnage
19 doesn't mean anything.

20 It would be an after-the-fact enforcement. And
21 what would you do to update the permit? And why do that
22 when this covers that -- we don't have to update the
23 permit to handle.

24 And the bottom line is that the facility meet the
25 state minimum standards. And as long as it does that,

1 tonnage is irrelevant.

2 COMMITTEE MEMBER PEACE: Personally I'd still
3 want to see a permitted tonnage limit on there like every
4 other permit so they're all consistent.

5 MR. GENTER: I guess you need to change the
6 regulation.

7 CHAIRPERSON PAPARIAN: Does this -- let me just
8 ask Mr. de Bie or Mr. Levenson.

9 Do you feel that this would set a precedent
10 whereby other facilities we'd start seeing without tonnage
11 in the permits?

12 Could Mr. Edgar come forward if his clients would
13 start putting forward permits without tonnage in them.

14 DEPUTY DIRECTOR LEVENSON: Yeah, so far to date,
15 as John indicated earlier, this has been a rare
16 circumstance. Part of the problem is that there's no
17 specific requirement for a tonnage -- a quantitative
18 tonnage limit in the regulations. So this is allowable on
19 those grounds.

20 Our preference is definitely to have a tonnage
21 limit.

22 But I'll ask Mark to respond as well. But I
23 don't think this is going to set a precedent. It's a
24 small isolated rural county.

25 MR. de BIE: If the precedent has been set, it's

1 already been set. This is the second or third permit that
2 has been written like this. Unless Ernie starts a
3 grass-root revolt in the LEA community to have all of them
4 start writing permits like that, I don't expect it to
5 extend out much more beyond those jurisdictions that
6 Ernie's involved with because I think both operators and
7 LEAs see the advantages of having specific thresholds
8 there that all can agree on in terms of expectations. So
9 I don't expect that it would extend much out from the
10 current use.

11 Certainly if it -- if we did see more and more
12 permits being proposed this way, it would be the option of
13 the Board to clarify the expectations in writing permits
14 and indicating that certain limits are expected and should
15 be expected. And that would probably have to be in a
16 regulation in order to have it enforced.

17 COMMITTEE MEMBER PEACE: What would it take to
18 change the regulation?

19 MR. de BIE: What would it take to --

20 COMMITTEE MEMBER PEACE: Yeah.

21 MR. de BIE: It would take significant resources
22 I think. You know, certainly you can adjust in terms of
23 how the scope of the regs -- if you just want to add in,
24 you know, something in the regulations that say, "All
25 permits will have a tonnage threshold," that may be easier

1 than, you know, trying to add some other language in there
2 that, you know, allows some exclusions or situations or
3 more descriptive information. So the simpler may be the
4 easier. But then it's hard to predict sometimes.

5 It's not a -- it wouldn't be a Section 100 type
6 change, that is, just a clarification. It would be a full
7 regulation package.

8 COMMITTEE MEMBER PEACE: Okay. I guess I still
9 don't see what the big problem with, say, take what, 62
10 tons a day or something. I know they're only permitted
11 for 28. That's another thing I didn't quite understand.
12 In 2003 the LEA said there was five violations of the
13 permit in terms and conditions. But if in the first six
14 months of 2003 they were exposed to 62 tons a day, and the
15 permit only allowed 30, wouldn't they have more violations
16 than five?

17 MR. GENTER: We wanted to have some -- new
18 installed scales and where they were weighted that way --
19 or weighted waste. It had not been weighed prior to that.
20 It was based on various conversion factors that had been
21 used. And we wanted to see several months worth of data
22 before we made a determination that was being accepted at
23 the site.

24 Peace pass Okay. I guess I realize it's not
25 regulations so there's nothing we can do about it. But I

1 still would like to see -- I mean if they're only taking
2 62 tons a day, so put it at 100, why don't we.

3 MR. GENTER: Well, if you look -- the maximum
4 that they have received it in one day is 600 through the
5 gate. But that was, for the most part, about 400 tons I
6 think of inert material that's used for ADC in the road
7 base. And so does that count and -- make a permit for 600
8 tons per day when in fact they only get 50.

9 COMMITTEE MEMBER JONES: But that wouldn't be
10 disposal.

11 COMMITTEE MEMBER PEACE: Yeah, that wouldn't be
12 disposal.

13 COMMITTEE MEMBER JONES: That's not disposal.

14 MR. GENTER: Well, is the tonnage for disposal or
15 through the gate? We've been told both at different
16 times.

17 COMMITTEE MEMBER JONES: It's for disposal.

18 CHAIRPERSON PAPARIAN: Do you have anything else,
19 Mrs. Peace?

20 COMMITTEE MEMBER PEACE: No.

21 CHAIRPERSON PAPARIAN: Mr. Jones?

22 COMMITTEE MEMBER JONES: I do because Ernie's got
23 me a little twisted right now.

24 Here I am upset at our staff for going over
25 mincing words. And you have decided to go the absolute

1 opposite and not include words. And you know what, I got
2 no problem dishing it out to anybody that needs a piece.

3 But tell me where it doesn't say that we have the
4 ability -- that an LEA has a right -- or has a
5 responsibility as an LEA to condition and ensure the safe
6 operation of a landfill?

7 MR. GENTER: It doesn't.

8 COMMITTEE MEMBER JONES: That's your job, right?

9 MR. GENTER: Yeah.

10 COMMITTEE MEMBER JONES: Okay. So you're telling
11 me that because -- the permits that we require, that
12 there's nothing that says that there be a cap?

13 MR. GENTER: They don't require -- there's no
14 requirement that there be a cap on a permit on tonnage, no
15 regulatory requirement.

16 COMMITTEE MEMBER JONES: So what do you use as
17 your rule?

18 MR. GENTER: The state minimum standards that the
19 site -- state minimum standards.

20 BOARD MEMBER JONES: And that's because of the
21 amount of waste that's coming in, right?

22 MR. GENTER: No.

23 COMMITTEE MEMBER JONES: Sure it is, Ernie. I
24 mean if you got too much waste and you don't have enough
25 material, you don't have enough equipment or personnel on

1 site to manage that waste, you're not going to operate to
2 state minimum standards.

3 MR. GENTER: Site operations and designs are not
4 based on a daily peak. It's based on an average that they
5 would get.

6 COMMITTEE MEMBER JONES: Would you get a
7 violation if you brought in 600 tons of waste and had one
8 D8 and it operated for 8 hours and you couldn't put it in
9 place? Would there be a violation of the landfill that
10 day that took that waste?

11 MR. GENTER: Depends if they could get it done or
12 not.

13 COMMITTEE MEMBER JONES: I'm telling you they
14 couldn't get it put in place in a day. Is there a
15 violation of state minimum standards that day because they
16 didn't operate to state minimum standards?

17 MR. GENTER: Yes, if they did not get cover or
18 whatever the state minimum standards was --

19 COMMITTEE MEMBER JONES: So what I think you're
20 drawing is you're saying, "I'm going to go to state
21 minimum standards, but I'm not going to have any
22 parameters to determine whether or not state minimum
23 standards are being meant."

24 MR. GENTER: There are some parameters in the
25 RDSI, in the CEQA document, and the permit.

1 COMMITTEE MEMBER JONES: And the RDSI doesn't
2 talk about incoming tonnage?

3 MR. GENTER: Yeah, it does.

4 COMMITTEE MEMBER JONES: And that's part of our
5 regulations?

6 MR. GENTER: In general.

7 COMMITTEE MEMBER JONES: Is that part of our
8 regulations?

9 MR. GENTER: Yeah.

10 COMMITTEE MEMBER JONES: And what does it talk
11 about?

12 MR. GENTER: It doesn't talk about a peak per se.

13 COMMITTEE MEMBER JONES: But it doesn't say don't
14 do peak. It says talk about the waste. So what you chose
15 to do -- what you chose to do is say you can take
16 everything in the waste shed, right?

17 MR. GENTER: Yeah.

18 COMMITTEE MEMBER JONES: That's legit, I think,
19 you know, from the standpoint that that probably falls
20 within it when you're at 70 tons a day. But it may be a
21 little more judicious to have a permit look like every
22 other permit in the state, except your five or six,
23 whatever you have, that have some kind of a tonnage
24 limitation on it, just from the standpoint of the
25 protection of the public.

1 MR. GENTER: I think the public is well protected
2 in my jurisdiction with these permits. So we have a
3 difference of opinion, I guess.

4 COMMITTEE MEMBER JONES: So you're saying that
5 you don't think that there is any need to have tonnage
6 limitations on any landfill permit?

7 MR. GENTER: Not at this site.

8 COMMITTEE MEMBER JONES: Because you've got the
9 operators in place to deal with whatever comes in.

10 The 600 peak that you talked about, that was ADC
11 road base, did they bury it or did they stockpile it?

12 MR. GENTER: Stockpiled it, most of it.

13 COMMITTEE MEMBER JONES: So they have the
14 expertise to stockpile it, but you don't have the
15 expertise to realize that's not waste going into a
16 landfill?

17 MR. GENTER: I've been told the tonnage could be
18 what comes through the gate. And actually that's been the
19 latest general consensus, is that the tonnage that's
20 permitted on the permit is through the gate, not disposal.

21 And am I wrong, Mark, on that?

22 MR. de BIE: There are advisories that have been
23 put out to LEAs indicating that the permit should reflect
24 the total tonnage that's handled at the site that's
25 consistent with CEQA. But certainly the LEA has the

1 option to indicate X amount of that tonnage is for
2 disposal, X amount is, you know, beneficial reuse and
3 those sorts of things. The level of detail will vary from
4 sight to site in terms of how they break it out, and
5 that's kind of based on the CEQA analysis that was done.
6 So if you have a CEQA document that says the site takes
7 10,000 tons of material, half of which is beneficial
8 reuse, then we're going to look for a permit that says
9 5,000 tons is waste for disposal, 5,000 tons for
10 beneficial reuse. We want to see some consistency there.

11 COMMITTEE MEMBER JONES: Did the JTD that Mr.
12 Genter approved for this correlate the operations and the
13 machinery on hand to the amount of waste that he thought
14 might come into the facility?

15 MR. de BIE: I'm going to have ask John Whitehill
16 to answer that since he reviewed the document.

17 John, did you hear the question?

18 MR. WHITEHILL: Well, I was just going to say,
19 yes, it does. But I could let the operator give you a
20 more detailed analysis of how they broke that down.

21 MR. VALENTINO: Good afternoon. I'm Tom
22 Valentino. I'm the manager of the JPA in Lassen County.

23 And, yes, that tonnage is matched to our
24 equipment. We have a D7 -- actually a relatively new D7R.
25 We've recently purchased a 826G compactor. We have a

1 backup bulldozer. We're prepared to handle the waste
2 stream in Lassen county. And that's what Mr. Genter is
3 proposing, is that we are just handling the waste in
4 Lassen County. And we think it's an appropriate policy to
5 protect human health and the environment, because we think
6 that it is appropriate for us to handle the waste stream
7 and not turn people away. One of the problems that we
8 have in Lassen, consistent with other rural counties, is
9 illegal dumping. It's something we're working strongly to
10 avoid; vehicle abatement, those types of things.

11 So we think that this is appropriate policy in
12 the Solid Waste Facilities Permit for this particular
13 facility. We're not trying to set a precedent. We're
14 trying to look at what makes the most sense for our
15 county.

16 COMMITTEE MEMBER JONES: If when you did the CEQA
17 document, you said that you were going to take everything
18 from the waste shed of Lassen County, and that
19 historically is 70 tons a day, 100 tons a day, whatever it
20 is, but that there would be occasion that more material
21 would come in. So we'd need a permit for 600 tons a day,
22 and we're going to just stay with Lassen County only.

23 Does that pass muster with the Board of
24 Supervisors? Or does that get them nervous because it
25 says 500 tons a day?

1 MR. VALENTINO: It would pass muster in that our
2 JPA, which is comprised of both two council members in
3 Susanville, two supervisors, and a member at large. It
4 would pass muster with them. There's no plans in Lassen
5 County to expand Bass Hill Landfill to take waste from
6 other jurisdictions. Quite the contrary, what we're doing
7 is trying to handle our waste rather than export them to
8 Lockwood Landfill.

9 We're one of the few landfills in the eastern
10 Sierra that is staying open. We're trying to manage the
11 waste in our county. We're a very large county, as you
12 may know. We have to bring waste in from north from
13 Highway 299 up in Beaver and Little valley, south from the
14 Hurlong area. So we want to have the ability to manage
15 our wastes in-county and not have to depend on outside
16 assistance for that.

17 CHAIRPERSON PAPARIAN: Anything else, members?

18 What's the pleasure of the Committee?

19 COMMITTEE MEMBER JONES: I'll move adoption of
20 2003-472, consideration of a Revised Full Solid Waste
21 Facility Permit for the Bass Hill Landfill in Lassen
22 County.

23 CHAIRPERSON PAPARIAN: I'll second it.

24 Secretary, call the roll.

25 SECRETARY KUMPLAINIEN: Jones?

1 COMMITTEE MEMBER JONES: Aye.

2 SECRETARY KUMPLAINIEN: Peace?

3 COMMITTEE MEMBER PEACE: Aye.

4 SECRETARY KUMPLAINIEN: Paparian?

5 CHAIRPERSON PAPARIAN: Aye.

6 Now, I'm wondering if we should put this on
7 consent or whether we should bring this up to the
8 attention of the Board.

9 Any thoughts, members?

10 COMMITTEE MEMBER JONES: How about if we put it
11 on consents, because it is a long transportation down
12 here. And then just address the issue as a committee
13 item. Not their issue, but the issue of that
14 interpretation. Which I actually would love to argue
15 because, while he may be right, that may be his point of
16 view, I'd love to see somebody else's point of view
17 sometime.

18 So I wouldn't have a problem with dealing with
19 that at another committee meeting.

20 CHAIRPERSON PAPARIAN: That sounds good. Let me
21 just -- Mr. Bledsoe, I didn't know if you were trying to
22 get my attention or not.

23 ACTING CHIEF COUNSEL BLEDSOE: Well, on that
24 specific point, if you want an opinion from our office by
25 the next Board meeting, I think we could manage that.

1 CHAIRPERSON PAPARIAN: I think that would be
2 helpful.

3 COMMITTEE MEMBER JONES: Sure.

4 CHAIRPERSON PAPARIAN: And then I think we'll
5 proceed as Mr. Jones suggested. We'll put this on the
6 consent calendar. But as part of the Committee
7 presentation, I'll summarize the discussion that took
8 place here so that we alert the Board to the issue.

9 DEPUTY DIRECTOR LEVENSON: Okay. We still have
10 two permit items to get through. And I've asked staff to
11 shorten the presentations for those.

12 Item H is consideration of a Revised Full Solid
13 Waste Facilities Permit (Disposal facility) for the Avenal
14 landfill, Kings County.

15 And Virginia Rosales is going to present that.

16 MS. ROSALES: Good afternoon.

17 The proposed permit is a revision for the March
18 '99 Solid Waste Facilities Permit. The facility is owned
19 and operated by the City of Avenal -- or excuse me -- it's
20 owned by the City of Avenal and operated by Madera
21 Disposal Systems, Incorporated.

22 The proposed permit allows for the following
23 changes:

24 An increase in the maximum daily tonnage from 300
25 tons per day to 475 tons per day.

1 A modification of the facility hours from 7 a.m.
2 to 3:45 for the receipt of waste Monday through Saturday,
3 but the facility maintenance usually occurring until 5
4 p.m., to 7 a.m. to 5 p.m. for the receipt of waste Monday
5 through Friday and 7 a.m. to 4 p.m. on Saturday.

6 Acknowledgement of the change in operator from
7 the City of Avenal to Madera Disposal Systems,
8 Incorporated.

9 And the final change, a change in the estimated
10 closure year from 2040 to 2018.

11 Board staff have reviewed the proposed permits,
12 supporting documentation, and have determined that all the
13 requirements have been fulfilled.

14 Board staff recommends concurrence in the
15 issuance of the proposed permit and adoption of Resolution
16 No. 2003-473, concurring in the issuance of Solid Waste
17 Facilities Permit No. 16-AA-0004.

18 CHAIRPERSON PAPARIAN: Questions, members?

19 Mrs. Peace.

20 COMMITTEE MEMBER PEACE: Yeah, I have another --
21 a general question.

22 Again, there is no traffic limits limited by the
23 daily tonnage. Does CEQA establish a vehicle limit? When
24 you do a CEQA, does that ever establish a vehicle limit
25 because of admissions?

1 MS. ROSALES: I'm going to have to call on the
2 LEA or the operator to answer that.

3 MR. FLORES: Good afternoon. My name's Louis
4 Flores. I'm with Kings County Environmental Health
5 Services.

6 As far as your question, Member Peace, there is
7 reference to the number of vehicles that may access the
8 facility. But it doesn't necessarily put a cap on it per
9 se. And so we based this permit, which is actually a
10 revision, that what you see here on this proposed permit
11 is no change from what's already present in the existing
12 permit. However, there is an increase in tonnage that's
13 been requested nor this revision.

14 So hopefully that somewhat answers your question.

15 One other item also is that the permit is -- the
16 proposal for the hours of operation are not from 7 to
17 3:45, but in actuality from 7 to 5 p.m.

18 We do have the City of Avenal Planning Director
19 here, Steven Sobb, for any additional questions. We have
20 the Facility Operator/Manager of Operations. We have the
21 Waste Connections regional engineer is also present.
22 Madera Disposal Systems regional manager is also present
23 as well, and the City of Avenal Public Works Director for
24 any additional questions.

25 CHAIRPERSON PAPARIAN: Okay. Any other

1 questions?

2 Mr. Jones.

3 COMMITTEE MEMBER JONES: No.

4 Mrs. Peace, do you have any other questions.

5 Okay. Go ahead, Mr. Jones.

6 COMMITTEE MEMBER JONES: Thanks, Mr. Paparian.

7 I'll move adoption of Resolution 2003-473,
8 consideration of a Revised Full Solid Waste Facility
9 permit (Disposal facility) for the Avenal Landfill in
10 Kings County.

11 COMMITTEE MEMBER PEACE: Second.

12 CHAIRPERSON PAPARIAN: Motion and a second.

13 Secretary, call the roll.

14 SECRETARY KUMPLAINIEN: Jones?

15 COMMITTEE MEMBER JONES: Aye.

16 SECRETARY KUMPLAINIEN: Peace?

17 COMMITTEE MEMBER PEACE: Aye.

18 SECRETARY KUMPLAINIEN: Paparian?

19 CHAIRPERSON PAPARIAN: Aye.

20 I think that's a candidate for consent.

21 Next item.

22 MR. FLORES: Thank you very much.

23 CHAIRPERSON PAPARIAN: Thank you. Thank you all
24 for coming up here.

25 DEPUTY DIRECTOR LEVENSON: Okay. Item I, the

1 last permit item, is consideration of a Revised Full Solid
2 Waste facilities Permit (Disposal Facility) for the Crazy
3 Horse Sanitary Landfill, Monterey County.

4 Mary Madison-Johnson will present this item.

5 MS. MADISON-JOHNSON: The Crazy Horse Landfill is
6 owned and operated by the Salinas Valley Solid Waste
7 Authority.

8 The proposed permit is to allow for two changes:
9 A change in hours for waste receipt and operations; and a
10 change of permitted estimated closure date from 2004 to
11 2006.

12 Board staff has reviewed the permit application
13 package in conjunction with the LEA and has determined the
14 following:

15 Design and operation facility are consistent with
16 state minimum standards.

17 The facility is identified in the county's
18 Integrated Waste Management plan -- siting element.

19 And the requirements of California Environmental
20 Quality Act have been complied with.

21 Therefore, in conclusion, staff recommend that
22 the Board adopt Solid Waste Facility Permit Decision
23 2003-474, concurring in the issuance of Solid Waste
24 Facility Permit 27-AA-0007.

25 CHAIRPERSON PAPARIAN: Any questions, members?

1 COMMITTEE MEMBER JONES: A quick one.

2 CHAIRPERSON PAPARIAN: Mr. Jones.

3 COMMITTEE MEMBER JONES: Thank you.

4 There was a problem with the Monterey -- or the
5 Salinas Transfer Station closing and a lot of that
6 material heading toward this facility. And there was a --
7 they were up against the vehicle counts.

8 Does this -- I don't see anything in here that
9 tells me that the vehicle counts are being altered.

10 MS. MADISON-JOHNSON: No, this does change. The
11 vehicle counts are still in an adequate range for what is
12 being accepted there. This is only changing hours.

13 COMMITTEE MEMBER JONES: All right. Well, is
14 that transfer station still operating?

15 MS. MADISON-JOHNSON: It's in a -- I'm not really
16 sure about the status. But I can certainly find that out
17 for the Board meeting. It was in kind of a limbo status
18 the last I personally have heard. And there's a decision
19 that the county is making as far as what the waste
20 management system will be.

21 COMMITTEE MEMBER JONES: Right. And I don't care
22 about that part. What I was worried about was when that
23 shut down traffic, these people were turning people away.
24 The scary part about that is they've already driven down
25 the access road to get into the landfill. So you've

1 already -- the cars have already traveled. And then
2 because they're up against their card number, you tell
3 them to turn around. So They got to drive all the way to
4 the other site, which doesn't do any -- I don't think
5 that's what CEQA -- I mean that's life, folks, in the big
6 city.

7 If this doesn't address it, are they going to
8 address it with waivers? And I see him with his hand --
9 he's hiding from me in the back of the room. He doesn't
10 want me to see -- oh, no, he isn't. Wrong one. I thought
11 it was somebody else. Sorry.

12 I thought it was somebody else.

13 You know, I'm worried about that. Or not
14 worried. But I mean it would seem to me if they're going
15 to manage this thing, they ought to make sure they can
16 deal with the vehicles if that thing shuts down.

17 MR. de BIE: Mary, help me with my memory. This
18 permit was revised just last year in March?

19 MS. MADISON-JOHNSON: Yes.

20 MR. de BIE: Wasn't one of the issues there the
21 traffic counts? That's what I'm trying to recall. There
22 was something about trucks coming in with cover as being
23 counted against them for waste, and that was clarified in
24 that last permit.

25 MS. MADISON-JOHNSON: That has been an issue.

1 But I'm not sure, Mark, without checking and getting back
2 to Mr. Jones.

3 BOARD MEMBER JONES: Okay. That's fine. I mean
4 I have no problem with the permit. I just -- I hate
5 seeing --

6 MS. MADISON-JOHNSON: I don't think there's
7 anybody here from the LEA or the operator. They're the
8 right people to answer that.

9 CHAIRPERSON PAPARIAN: Do we have a motion?

10 COMMITTEE MEMBER JONES: Mr. Chair, I'll move
11 adoption of Resolution 2003-474, consideration of a
12 Revised Full Solid Waste Facility Permit (Disposal
13 Facility) for Crazy Horse Sanitary Landfill in Monterey
14 County.

15 COMMITTEE MEMBER PEACE: Second.

16 CHAIRPERSON PAPARIAN: Okay. There's a motion
17 and a second.

18 Secretary, call the roll.

19 SECRETARY KUMPLAINIEN: Jones?

20 COMMITTEE MEMBER JONES: Aye.

21 SECRETARY KUMPLAINIEN: Peace?

22 COMMITTEE MEMBER PEACE: Aye.

23 SECRETARY KUMPLAINIEN: Papanian?

24 CHAIRPERSON PAPARIAN: Aye.

25 I think this is a candidate for consent also.

1 Next item.

2 COMMITTEE MEMBER PEACE: Mr. Chairman?

3 CHAIRPERSON PAPARIAN: Oh, Mrs. Peace, do you
4 have something?

5 COMMITTEE MEMBER PEACE: Yes. Before we go on to
6 the next item. I just noticed this month that quite a few
7 of the permits and permit revisions were submitted past
8 the pass deadline. I'm wondering, has this become a
9 problem for staff? Is this really squeezing you guys on
10 time? Are you happy with this pass deadline being
11 voluntary? Do we need to do something --

12 DEPUTY DIRECTOR LEVENSON: Let Mr. de Bie respond
13 in detail. But that is one of the reasons we flagged this
14 in a number of the agenda items, is that we were getting
15 submittals of permit applications beyond the voluntary
16 date, which would allow us a full 60 days to assess the
17 applications. And we are due to report back to the
18 Committee on that pilot program as soon as we get a little
19 bit of time to analyze kind of the last year, year and a
20 half in terms of their compliance with pass.

21 And I don't know if you want to add anything to
22 that, Mark.

23 MR. de BIE: The only thing I think I would add
24 is that this is sort of an unusual month in terms of how
25 permits came to us. In the recent past, the last few

1 months at least, we've had 60 days or they're very close
2 to 60 days. But there were a couple this time around that
3 did come in, and they were a number that came in and then
4 needed some changes either from the LEA side or from our
5 suggestions.

6 So I guess I'm saying it's -- if it continues
7 like this next month, yeah, then it would be an issue.
8 But I think -- I'm hoping this is just a peak and it will
9 even out next month.

10 COMMITTEE MEMBER PEACE: Thanks.

11 So right now you kind of like it the way it is?
12 You don't think it needs to be --

13 DEPUTY DIRECTOR LEVENSON: Well, we're definitely
14 flagging it to your attention for exactly that reason. If
15 this becomes a pattern, then it is going to cause a lot of
16 problems for us in terms of getting timely information and
17 reviews to you for your consideration.

18 So we will be looking at the time -- I don't know
19 how long it's been -- since 2002. We'll look at the
20 entire 15, 18 months and report back to you. But if it's
21 a continuing trend, then we are going to have to try and
22 address it in some way.

23 There's been previous attempts to change the
24 60-day period legislatively that have not succeeded. So
25 that's been a long-standing problem for the Board.

1 MR. de BIE: And Mary just whispered to me
2 relative to Crazy Horse, there was an effort made on the
3 LEA side to share draft documents with us. And so that
4 assisted us, enabled to facilitate the process when the
5 permit did come in for Monterey. So certainly when those
6 sorts of things occur, you know, we can handle less than
7 60 days and still get a complete item to the Committee.

8 So there's little things that we want to analyze,
9 some big things too, analyze and see the effectiveness in
10 overall getting a complete package to the Committee to
11 hear on a timely way. And it may not just be the 60 days.
12 It may be things like encouraging draft documents and that
13 sort of thing.

14 COMMITTEE MEMBER PEACE: Okay.

15 CHAIRPERSON PAPARIAN: Okay. So something we may
16 need to look at in the future.

17 Okay. Go ahead.

18 DEPUTY DIRECTOR LEVENSON: Thank you, Mr. Chair.

19 Item J is the semi-annual update and publication
20 of the inventory of solid waste facilities which violate
21 state minimum standards.

22 And before Leslee Newton-Reed gets into this, as
23 she may also mention, is I just want to point out that we
24 now have the inventory on the website and we do update it
25 whenever there's any change in the status of any of the

1 facilities on the inventory or if there's new facilities
2 to be added. So we do have a kind of on-time updating
3 now.

4 I'd like to work with the Committee in terms of
5 finding out your preferences for future agenda items,
6 whether we might be able to just report once a year or
7 have a deputy's report whenever there's a change in the
8 inventory and so we can continue to discuss that.

9 MS. NEWTON-REED: Good afternoon.

10 The Board is required by the Public Resources
11 Code Section No. 44104 to maintain a list for all
12 facilities that violate state minimum standards and
13 publish it twice annually.

14 This is an informational agenda item only and no
15 Board action is required.

16 Since April, since the April update, six
17 facilities were removed from and four were added to the
18 inventory list as shown in Attachment 1?

19 Three of the sites are on the inventory for
20 landfill gas violations as shown in the graph in
21 Attachment 2.

22 Details on each facility are in Attachment 3.

23 Here are the latest updates since the agenda item
24 was written:

25 The Azusa Land Reclamation Company Landfill has

1 responded to comments received by the multi-agent agency
2 task force regarding the hazardous waste cleanup, and is
3 currently in compliance with the notice and order. The
4 LEA will be issuing an amended notice and order next week.

5 Staff has developed draft business practices for
6 updating the inventory on the Board's website. A recent
7 meeting between the Facilities Operations Branch and
8 Permitting and Inspections Branch yield some exciting
9 options for a database-driven on-line inventory list.
10 There will be more information -- excuse me.

11 This concludes my presentation. Are there any
12 questions?

13 CHAIRPERSON PAPARIAN: Questions, members?

14 COMMITTEE MEMBER JONES: I do.

15 CHAIRPERSON PAPARIAN: Mr. Jones.

16 BOARD MEMBER JONES: Thanks, Mr. Chair.

17 I appreciate this and I appreciate how it's going
18 down and I appreciate the way you do it. So I like seeing
19 it every six months, just so you know, just as one member.

20 For reasons like this: YSDA, Okay? -- not the
21 NorCAL Company but the landfill that was right next to the
22 Yuba-Sutter disposal site that this Board had to I think
23 extinguish a fire up and then close -- partial close?

24 Well, anyway -- right? We put out a fire, we had
25 to do some closure, we had to do some cover, right?

1 Okay. So when I look at all these things here
2 that should be in closure, everything here is something
3 that should be in closure with the exception of one item,
4 change of ownership. Which tells me somebody has bought
5 that site. Did they buy that site and know -- and I've
6 talked to Mike Wochnick about it because I got a call from
7 an elected official in another part of the state who
8 wanted to know. Who do we -- I mean somebody had to have
9 some responsibility here I mean to make sure that they
10 understood that that was not a fully closed landfill. Now
11 did these people buy this thing thinking they were going
12 to run a landfill in this toilet or what exactly?

13 MR. WOCHNICK: Mike Wochnick with the Closure
14 Unit. I'll try to address that.

15 Well, we and the LEA and our Legal Office have
16 been working with the new owner, who's not too happy right
17 now because --

18 COMMITTEE MEMBER JONES: Did they know that this
19 was here? Did they know all this was facing them?

20 MR. WOCHNICK: They knew it was adjacent to the
21 landfill. But the land had been, you might say, illegally
22 subdivided, because the whole -- there was one large
23 parcel that was included as the whole landfill property.
24 The parcel that the gentleman, a Mr. Beeler, bought was
25 subdivided from the portion that had waste on it. As far

1 as we and the LEA know, on this other portion there is no
2 waste disposed on it as far as we know. But it was used
3 for certain activities during the active landfilling
4 operation.

5 ACTING CHIEF COUNSEL BLEDSOE: Mr. Chairman,
6 excuse me. May I interrupt for just a second.

7 Since this matter is an enforcement matter that's
8 pretty likely to lead into litigation, I don't want to
9 discuss it in very much detail right now. So perhaps I
10 could respond to the questions, if that would be okay with
11 you.

12 And specifically, we do not know for the purposes
13 of the record whether the property was illegally
14 subdivided.

15 COMMITTEE MEMBER JONES: Good cover.

16 ACTING CHIEF COUNSEL BLEDSOE: Thank you.

17 (Laughter.)

18 CHAIRPERSON PAPARIAN: Can I just ask a related
19 question on that?

20 It says here we can't find the owner. But the
21 new buyer was able to find the owner presumably in a
22 transaction.

23 ACTING CHIEF COUNSEL BLEDSOE: The owner appears
24 to live in another state. And so there has been a lot of
25 difficulty in serving him.

1 You know, as to the relationship between the
2 original owner of the entire property that contains the
3 landfill and the subsequent property owners, which there
4 are two -- and it's the current -- the land has changed
5 hands twice. It's the current owner that is particularly
6 upset that it has found out it owns part of a landfill.
7 And we understand that owner is attempting to rescind the
8 sale to get out of, you know, ownership position regarding
9 this property.

10 CHAIRPERSON PAPARIAN: Go ahead, Mr. Jones.

11 COMMITTEE MEMBER JONES: Thanks, Mr. Papanian.

12 I guess we need to -- this is what lists like
13 this should be able to do, not only for the public but for
14 this body. There is a problem here. Now, I don't want to
15 get into the detail of where the garbage was placed,
16 what -- I don't want to get into that. But all of these
17 things -- we're saying that there's no gas monitoring
18 going on. This site was on fire for 17 years. That I
19 will put on the record, because I saw the smoke coming up
20 every time I went to my facility right next door. And I
21 have enough anecdotal information from those that have
22 been there that long that it had been a fire at least that
23 long. This Board put it out. This Board did a great job.

24 But if it didn't eat up all the methane and
25 they're not doing gas monitoring, we got another potential

1 problem. So we need to look at what's here, I think, as
2 an example of these are the things that aren't being done
3 by whoever the owner is. And I think it's -- it may be
4 legal to say it's the guy that bought the piece that never
5 had a -- you know, that never took garbage, that it's on
6 him, the second owner. That may be legal and that might
7 be what we want to do.

8 I think somehow we better crank this up a little
9 bit or at least go out and do some monitoring of our own
10 to make sure that the gas is not getting -- see, we got to
11 look at two things. We got to make sure that there is gas
12 and that it's not on fire again, you know, it would seem
13 to me. If nobody is doing anything here, we at least need
14 to -- I'm not telling you what to do. You need to come up
15 with a plan. You need to think about it. You need to see
16 what's the appropriate level of investigation. And I
17 think that would be an important thing that this list
18 could provide as a tool for our staff, on this one anyway.

19 CHAIRPERSON PAPARIAN: Yeah, all very good
20 suggestions. And I think Mr. Jones also mentioned
21 generally on the list, liking to see it periodically.
22 Every six months I think has been the practice. But if
23 you want to, you know, in another --

24 DEPUTY DIRECTOR LEVENSON: We can do that.

25 CHAIRPERSON PAPARIAN: Okay.

1 DEPUTY DIRECTOR LEVENSON: And we also will --
2 we'll talk internally about YSDA and get back to you with
3 some further information and ideas.

4 CHAIRPERSON PAPARIAN: Yeah. And then the other
5 thing that I always like to look at -- I didn't add up the
6 numbers on this one -- is the number of publicly owned
7 facilities versus privately owned facilities. We don't
8 need to add it up right here now. But I always want to be
9 sure that the publicly owned facilities are being treated
10 in a comparable way to privately owned facilities. And
11 this list provides us one indicator of that, you know,
12 understanding that there are more rural facilities and so
13 forth with the publicly owned facilities.

14 But I think we always want to be sure that the
15 publicly owned facilities are being treated and enforced
16 in a comparable way to the privately owned facilities.
17 And, again, this list helps us keep an eye on that.

18 Anything else on this item?

19 Mr. de Bie.

20 MR. de BIE: As Leslee indicated, we've had some
21 discussion about what we can do with this item now that
22 we're moving towards -- more and more towards automating
23 it in database.

24 So certainly we'll take your input in terms of
25 what kind of queries we could do on the data and, you

1 know, different ways of presenting it. So we could do
2 private and public. We could do various, you know, closed
3 active. We could do, you know, various standards.
4 There's going to be a lot of interesting ways that we can
5 present the data and not just, you know, have a list. So
6 We'll be exploring those.

7 CHAIRPERSON PAPARIAN: And I think one of the
8 things that I heard suggested was, you know, as the
9 facilities get added to the list, you will go ahead and
10 post those on the website, which sounds --

11 MR. de BIE: Yes. And --

12 CHAIRPERSON PAPARIAN: -- sounds good to me, and
13 I'm sure the rest of the members will be comfortable.

14 Maybe not.

15 BOARD MEMBER JONES: After the three months.

16 MR. de BIE: Before we formally move to a new way
17 of presenting it on the web, we'll bring it back to the
18 Committee with a demonstration on what it will look like,
19 and certainly get your input on, you know, how frequent
20 and what it should look like as it's being updated, that
21 sort of thing. So we'll be sharing that with you as soon
22 as we get it a little bit more formalized.

23 CHAIRPERSON PAPARIAN: Okay. Good.

24 Next and final item.

25 Now, this is the ADC regs.

1 DEPUTY DIRECTOR LEVENSON: Correct.

2 CHAIRPERSON PAPARIAN: And will this need to come
3 to the full Board for a vote, or are we on the final --

4 DEPUTY DIRECTOR LEVENSON: Yes, unless we hear
5 some testimony to -- that makes you change -- or consider
6 a different recommendation than what we're recommending,
7 this would be the final iteration.

8 CHAIRPERSON PAPARIAN: Okay. And then is
9 there -- just so I know. I had one speaker slip, but I
10 don't think Mr. Smith-Klein is in the room still.

11 Is there anybody else who's going to want to
12 speak on this item?

13 No. Okay.

14 Still a little agenda management here.

15 COMMITTEE MEMBER JONES: Mr. Chair.

16 CHAIRPERSON PAPARIAN: So I think we can go
17 forward without a break.

18 Mr. Jones.

19 COMMITTEE MEMBER JONES: I just have a question
20 before the resolution.

21 CHAIRPERSON PAPARIAN: Go ahead.

22 COMMITTEE MEMBER JONES: The issue on the LEAs
23 looking at the depth on the site of material, it was
24 brought up in a letter, but it was also brought up in a
25 discussion that we had. They're going to determine then

1 if there is a violation --

2 DEPUTY DIRECTOR LEVENSON: -- for that day.

3 COMMITTEE MEMBER JONES: -- for that day.

4 I think part of the concern was, do they go back
5 and try to mathematically at some point determine if
6 there's been an abuse of ADC? And then that one it said
7 in the regs that LEA would not be involved at that point.

8 My understanding as a result of that meeting was
9 that we weren't going to go back and do that, you know,
10 because it's incalculable. I mean there's too many
11 variables.

12 Is that --

13 DEPUTY DIRECTOR LEVENSON: We can explain that
14 process. We've gone through that with the stakeholders.
15 And that's -- the explanation of that would be in the
16 final statement of reasons. So it's very clear how that
17 would be handled. But we can go through that as part of
18 the presentation today to explain that once more.

19 COMMITTEE MEMBER JONES: Okay. Because that was
20 my only question, Mr. Chairman.

21 CHAIRPERSON PAPARIAN: Okay. Well, I think if he
22 answers the question -- we've heard this several times.

23 Mrs. Peace -- well, why don't we get the answer
24 to that question, and then we'll see if any of the rest of
25 us have questions.

1 DEPUTY DIRECTOR LEVENSON: Would you like a
2 presentation, or you just want to address that question
3 and --

4 CHAIRPERSON PAPARIAN: No, why don't you just
5 answer that question.

6 MR. HOHLWEIN: That would be the first in a
7 series of steps if we found that the supporting
8 information found -- Excuse me.

9 COMMITTEE MEMBER JONES: Who are you?

10 CHAIRPERSON PAPARIAN: Identify yourself.

11 MR. HOHLWEIN: I'm terribly sorry.

12 Reinhard Hohlwein from the Permitting and
13 Inspection Branch.

14 That would be the first step. And if the
15 information that was found in the records supported that,
16 then there might be additional information that would also
17 confirm that. And I think there's been concern that it
18 might work backwards, that it would be information first
19 found in the records that would lead to field observations
20 or lead to conclusions. We have not really decided to
21 work that way. We -- the LEAs will work on the front end
22 of things. And, if necessary, the Board will also go out
23 there and, if possible, confirm that information. But I
24 don't think it's going to go -- work in both directions.

25 COMMITTEE MEMBER JONES: Okay. And, Mr. Chair?

1 I appreciate that. That answers my question,
2 because I want it to be enforced obviously. The last time
3 this happened I was the one that made the motions. So I
4 want it to be enforced. But you can't calculate. I think
5 we all know that. Terrains are different. Volumes are
6 different. Material types are different. As long as
7 that's not an issue, then, Mr. Chair, I am prepared to
8 move both of these resolutions.

9 MR. HOHLWEIN: However --

10 COMMITTEE MEMBER JONES: Oh, good. I knew there
11 would be more.

12 MR. HOHLWEIN: I don't want to go too far in one
13 bite.

14 There's the possibility that the records will
15 show that there's been a significant discrepancy -- am I
16 right? -- in that it's coming -- excuse me? -- by way of
17 the DRS records or, in the past, prior to DRS we've had
18 information that came in that showed that there may have
19 been a discrepancy between what was initially reported and
20 what was later discovered to have been used. So it's
21 conceivable that there will be a need to look at that.
22 But it won't lead to field investigations saying that that
23 volume was placed there and that could be confirmed. I
24 don't think you can do that post hoc. Is that what
25 you're -- does that answer the question?

1 COMMITTEE MEMBER JONES: I don't have a problem
2 if DRS says these guys used 400,000 tons. You go in and
3 find out where the heck did you use 400,000 if you only
4 brought in 200,000 waste? And you find out that they had
5 put it on side slopes and done other things and they just
6 didn't fill it out right. I don't have a problem with
7 that.

8 But where I get nervous is when -- and I haven't
9 heard it too much from this Board. But, you know, there
10 are some that think that you can calculate how much ADC
11 based on some kind of a normal mathematical equation.

12 MR. HOHLWEIN: There's been a lot of concern.

13 COMMITTEE MEMBER JONES: And that's impossible.
14 It cannot be done.

15 So as long as we're not going down that track,
16 I'm fine -- I want you to do your job. I mean, you know,
17 Reinhard, what I'm saying, I don't care. If numbers show
18 an abuse, go find the abuse. My only concern was that in
19 the regs it almost sounded like we were going to do these
20 mathematical things as a course of action normally.

21 MR. HOHLWEIN: Right. That's not the way it's
22 going to work.

23 COMMITTEE MEMBER JONES: And you can't
24 reconstruct those faces. That was my only issue. As long
25 as that's not it, we don't have a problem.

1 CHAIRPERSON PAPARIAN: Can I Just as kind of a
2 follow-up.

3 The facilities when they report -- I think it's
4 when they report to the BOE, don't they indicate several
5 types of items? Do they indicate --

6 MR. HOHLWEIN: Well, there are materials that
7 will need to be reported for taxation purposes with
8 respect to disposal and there will be ones that will be
9 given credit that they will not pay fees --

10 DEPUTY DIRECTOR LEVENSON: We could have Lorraine
11 provide more detail on that if you wish.

12 But I would point out that I think it was in May
13 or so we had a -- earlier this year we had the results of
14 the last investigation on ADC. And that was kind of the
15 process that we typically use where if there was some
16 numerical discrepancies that staff had noticed -- we would
17 then go back out in the field and talk to the operator,
18 both DRS and P&I staff. If we'd end up -- if we couldn't
19 even resolve it at that point we'd come back to the Board
20 seeking further directions. But it wouldn't be a
21 backwards calculation at all. It would be bringing it
22 back to you for some direction.

23 And I think two rounds ago we did actually have a
24 couple of situations where the Board did direct us to take
25 further actions.

1 MR. de BIE: If I could add two cents. I think
2 you're dealing with numbers in potentially three different
3 areas. You can have it in the DRS in what's reported for
4 the BOE, as well as what is recorded in the daily tonnage
5 requirement or reports. And it would be staff -- Board
6 staff that would be looking at those kinds of numbers to
7 see if they're consistent. If they see some inconsistency
8 there, they would use that only as a flag to go and look
9 deeper to see if there's something going on, is there a
10 misreporting, is there some issue going on?

11 And if it can't be explained through misreporting
12 or whatever, then maybe we do end up saying something --
13 you know, that some of this material that had been
14 identified as being used as cover was actually disposed.
15 But that would be well down the road after trying to
16 eliminate all the other possibilities.

17 CHAIRPERSON PAPARIAN: Okay. This gets a little
18 beyond the regulations themselves. But how many items get
19 reported to BOE? How many tonnage and...

20 MS. VAN KEKERIX: Lorraine Van Kekerix with the
21 Waste Analysis Branch.

22 I don't have a BOE report with me, so I can't --
23 I can give you more specifics after I go back to my
24 office. But basically BOE has the tons that are disposed.
25 And those are the tons that the fee is paid on. And then

1 it has some categories that deal with waste that may come
2 in that's not disposed for other kinds of uses like
3 erosion control. But that isn't collected in a
4 standardized way at all the different landfills around the
5 state.

6 So the primary thing that we look to BOE for is
7 the tons disposed. And during the DRS regulations
8 revisions process, we are working with BOE to see if we
9 can get the reports that come to them and come to us more
10 standardized.

11 CHAIRPERSON PAPARIAN: Okay. But then the
12 reports that come to us would have -- based on the things
13 we did a few months ago, would have the ADC numbers and
14 other beneficial --

15 MS. VAN KEKERIX: The DRS reports do have that,
16 ADC numbers.

17 CHAIRPERSON PAPARIAN: Right.

18 Do we put that in the Swiss -- is it the Swiss
19 system? Yeah. We put the tons disposed at a facility in
20 the Swiss system.

21 MR. de BIE: Not in the Swiss system per se.
22 What we report in the Swiss system is permitted tonnage
23 and actual tonnage. But there is a database that tracks
24 the reported tonnage for the DRS.

25 MS. VAN KEKERIX: Right. The Disposal Reporting

1 System database has the disposed tons and the ADC.

2 CHAIRPERSON PAPARIAN: By facility?

3 MS. VAN KEKERIX: By facility, by jurisdiction.

4 And that is up on the web.

5 CHAIRPERSON PAPARIAN: Okay. Anything else on
6 this?

7 COMMITTEE MEMBER JONES: Mr. Chair?

8 CHAIRPERSON PAPARIAN: Mr. Jones.

9 COMMITTEE MEMBER JONES: I'll move adoption of
10 Resolution 2003-475, Consideration of the adoption of a
11 Negative Declaration (State Clearinghouse No. 2003092012)
12 for the proposed regulations for the Alternative Daily
13 Cover requirements.

14 COMMITTEE MEMBER PEACE: Second.

15 CHAIRPERSON PAPARIAN: Okay. There's a motion
16 and a second.

17 Secretary, call the roll.

18 SECRETARY KUMPLAINIEN: Jones?

19 COMMITTEE MEMBER JONES: Aye.

20 SECRETARY KUMPLAINIEN: Peace?

21 COMMITTEE MEMBER PEACE: Aye.

22 SECRETARY KUMPLAINIEN: Papanian?

23 CHAIRPERSON PAPARIAN: Aye.

24 And that was the CEQA item. So we have one more.

25 COMMITTEE MEMBER JONES: Mr. Chair, I'll move

1 adoption of Resolution 2003-476, consideration of the
2 adoption of the proposed regulations for the Alternative
3 Daily Cover requirements.

4 COMMITTEE MEMBER PEACE: Second.

5 CHAIRPERSON PAPARIAN: There's been a motion and
6 a second on this one.

7 I think we can substitute the prior roll call.

8 Typically on the final adoption of regulations
9 we've done an abbreviated presentation to the full Board.
10 Does that seem --

11 DEPUTY DIRECTOR LEVENSON: We have had
12 discussions with Legal staff about abbreviated versus even
13 being on consent. In this particular case we had to
14 extend the comment period on the Negative Declaration for
15 the South Coast AQMD until the 15th, the day before the
16 Board meeting. So while we're not anticipating any
17 comments, you know, we don't have that comment period
18 actually closed. So I think probably we're going to have
19 the abbreviated presentation in a full Board vote.

20 CHAIRPERSON PAPARIAN: Yeah, and I think --
21 generally on big reg packages I'm inclined to do that
22 anyway just as -- we can probably make it about as short
23 or shorter -- probably shorter than we had today.

24 DEPUTY DIRECTOR LEVENSON: See if we can make
25 Reinhard's presentation shorter.

1 MR. HOHLWEIN: I'll do my best.

2 COMMITTEE MEMBER JONES: I won't even ask a
3 question.

4 CHAIRPERSON PAPARIAN: Okay. That covers our
5 regular agenda.

6 Any public comment?

7 Seeing none.

8 This meeting is adjourned.

9 (Thereupon the California Integrated
10 Waste Management Board, Permitting and
11 Enforcement Committee adjourned at
12 4:25 p.m.)

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CERTIFICATE OF REPORTER

I, JAMES F. PETERS, a Certified Shorthand Reporter of the State of California, and Registered Professional Reporter, do hereby certify:

That I am a disinterested person herein; that the foregoing California Integrated Waste Management Board, Permitting and Enforcement Committee meeting was reported in shorthand by me, James F. Peters, a Certified Shorthand Reporter of the State of California, and thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said meeting nor in any way interested in the outcome of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand this 30th day of October, 2003.

JAMES F. PETERS, CSR, RPR
Certified Shorthand Reporter
License No. 10063